

## **For Reference**

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**NOT TO BE TAKEN FROM THIS ROOM**

AN INVESTIGATION INTO THE ADVISABILITY  
OF ESTABLISHING A COMPOSITE HIGH SCHOOL  
TO SERVE THE PICTURE BUTTE AREA

BY

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## SYNOPSIS

The author's aim in this study was to investigate the advisability of establishing a composite high school to serve the Picture Butte area. This involved an evaluation of the adequacy of the existing small high schools in serving the needs of the people of high school age in the area, the proposal of a plan for a composite high school, and an appraisal of the feasibility of the plan.

A survey of school enrolments indicated a relatively small proportion of students in the high school grades and a high drop-out rate in these grades. In comparison with larger schools offering more diversified programs, the proportion of students completing high school in this area was found to be low. It was concluded that the traditional academic program offered in the schools of this area was not suited to the interests and aptitudes of a large number of students entering high school.

A plan for establishing a composite high school at Picture Butte over a period of three years was outlined. The program for this school provided for expansion of the curriculum by the addition of courses in commercial and shop subjects. This program would enable a student to obtain a high school diploma by any one of the following routes: an academic course, a commercial course, a technical course in shop subjects, or a general course.



It was found that with the exception of the shop building, existing high school buildings at Picture Butte would be adequate for the implementation of the plan. A new shop building, or at least an extension to the existing building, would be necessary.

To carry out the proposed plan, the three smaller high schools in the area would be closed and the students from those schools would be transported to Picture Butte. The reduction in the high school teaching staffs at these smaller schools would be offset by an increase in the Picture Butte staff, and the number of teachers serving the area would remain unchanged.

The transportation of students from the more distant small schools was a major factor considered in assessing the feasibility of the plan. It was shown that minor changes in the daily time schedules of the different schools would make transportation possible without undue hardship on any group of students.

The main increases in costs would result from the extra transportation, and from providing a building and equipment for the shop courses. It was not considered that this additional expenditure would cause an excessive increase in the tax burden in the area.

In general the establishment of a composite high school for the Picture Butte area was found to be desirable and feasible.



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THE UNIVERSITY OF ALBERTA

AN INVESTIGATION INTO THE ADVISABILITY  
OF ESTABLISHING A COMPOSITE HIGH SCHOOL  
TO SERVE THE PICTURE BUTTE AREA

A DISSERTATION  
SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES  
IN PARTIAL FULFILMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF MASTER OF EDUCATION

FACULTY OF EDUCATION

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## CHAPTER I

### INTRODUCTION

#### 1. Reason for the Investigation

Since the formation of the first school divisions in Alberta in 1936 great changes have been brought about in rural education. In many respects the Lethbridge School Division has been among the leaders in this progress. In the fifteen years of divisional administration nearly all the one-roomed schools in the Division, and practically all were of that kind in 1936, have been replaced by multi-roomed central schools with auditoria, shop and home economics rooms, and equipment such as typewriters, duplicating machines, and motion picture projectors.

A good deal of this progress is due to the foresight of Mr. Owen Williams, Superintendent of the Lethbridge School Division from its beginning until his retirement in 1951. Mr. Williams suggested in 1949 that an investigation into the advisability of establishing a composite high school in Picture Butte to serve the surrounding area would be of practical value. Although all children of high school age have easy access to the existing small high schools, he doubted that they were adequately served because of the rather limited curricula of these schools. Mr. Williams visualized composite high schools throughout the southern part of the Province, and,



finally, a junior college, affiliated with the University of Alberta, in the City of Lethbridge.

This study was undertaken to analyze the weaknesses of the existing high school system in the Picture Butte area and to investigate the feasibility of a composite-type high school to improve high school services.

## 2. The Problem

This investigation attempts to determine whether it would be advisable for the Lethbridge School Division, in the near future, to replace the four existing small high schools in the Picture Butte area by one centralized school offering a much more diversified program than the present schools. To determine this, answers are sought to the following questions:

1. In what respects, if any, and to what extent, does the present system of small high schools in the area fail to serve the needs of the people of high school age ? In view of existing buildings, equipment, staff, and bus service, is a justifiably large proportion of the people of high school age in school and are they satisfactorily completing the high school program ? What justification is there to assume that a more diversified program would serve better than the existing programs ?



2. Taking into account available facilities and probable enrolment, what kind of expanded program, in terms of specific courses, is possible ?
3. Is such a program practical ? Could students from all parts of the area get to the school ? Could such a school and program be financed without an excessive increase in the tax burden ? How could such a program be implemented ?

This study has the following limitations:

1. The area under consideration is that part of the Division now served by schools at Turin, Iron Springs, Barrhill, Shaughnessy, Diamond City, and Picture Butte.
2. The proposed new program is for Grades X, XI and XII only. The lower grades are not considered except insofar as they are affected by the changes which would be made in the high school.
3. The study is limited to the consideration of the desirability and feasibility of establishing a composite high school and not with possible future problems of its development and administration.



### 3. Plan of Procedure

A general description of the Picture Butte area and a brief history of some aspects of the development of the Lethbridge School Division will be given as a background to the investigation.

A survey will be made of existing school buildings in the area, their equipment, high school programs offered in the different schools, organization of the schools by grades, and trends in enrolments. The adequacy of the existing system and the need for a new system will be inferred from a study of the proportion of students in the high school grades, the number leaving during their high school years, the success of those who remain in school, the success of students in different types of subjects, and from comparisons with other schools.

Some information will be given on composite high schools in general and an attempt will be made to outline some of their basic characteristics.

A fairly definite program will be outlined for the Picture Butte area and details of its implementation over a period of three years will be described.

A plan to transport the students from all parts of the area to the school will be discussed.

Finally, some consideration will be given to the financial implications of the whole proposal for the composite high school.



#### 4. Definition of Terms

Centralization--The process of forming a large school by transporting the pupils of smaller, scattered schools.

Centre--A school resulting from centralization, a term in common use in the Picture Butte area.

Circuit--The itinerary of a teacher who serves more than one school. It applies in this area only to teachers of shop and home economics subjects.

Commercial courses--Courses in typewriting, bookkeeping, office practice, etc.

Composite high school--Strictly, a very large high school offering instruction in practically every course on the Alberta high school program. Where used in this work in reference to a proposed school for the Picture Butte area, it means the beginning of such a school, i.e., a school offering a range of courses in commercial and technical subjects in addition to academic courses.<sup>1</sup>

Constants--Courses in English, social studies, and health, comprising nearly 40% of the requirements for a high school diploma--compulsory for all students.

Diversified program--The program of studies of a composite high school.

Division--The large unit of school administration in Alberta. When used in this work, capitalized, the Lethbridge School Division No. 7 is meant.

Electives--All courses other than constants. Choice among these courses is limited to some extent by diploma requirements.

Technical courses--Courses in shop subjects such as wood-work and automotives. The term is often used to include, also, home economics subjects such as foods and nutrition.

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<sup>1</sup> The definition of the term "composite high school" is more fully developed in Chapter III.



## 5. Description of the Area

Figure 1, page 7, shows the boundaries of the Lethbridge School Division and its location in relation to surrounding towns. The City of Lethbridge is within the boundaries but is not a part of the Division. As a consequence of the establishment of certain co-terminous areas in the southern part of the Province, the boundaries of the Division were changed in January 1954. These changes are indicated in Figure 1. Although the Division was considerably reduced in size, the school population was reduced by only about 10%. The total assessment, however, was decreased by nearly 20%.<sup>1</sup>

The shaded portion of the map, which constitutes the eastern part of the Lethbridge Northern Irrigation District, represents the area under consideration in this investigation. It is referred to in this study as the Picture Butte area. It has natural boundaries on the east and south, the Little Bow and the Old Man Rivers respectively; the northern boundary is the boundary of the Division and the western boundary is, roughly, a north and south line about four miles west of Diamond City. The map shows that the Division lost a small part of the Picture Butte area as a result of the 1954 boundary changes. However, the effect of this loss is negligible insofar as this investigation is concerned.

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<sup>1</sup> These percentages were calculated from figures given in the Annual Report of the Superintendent to the Electors and Divisional Board, 1953.



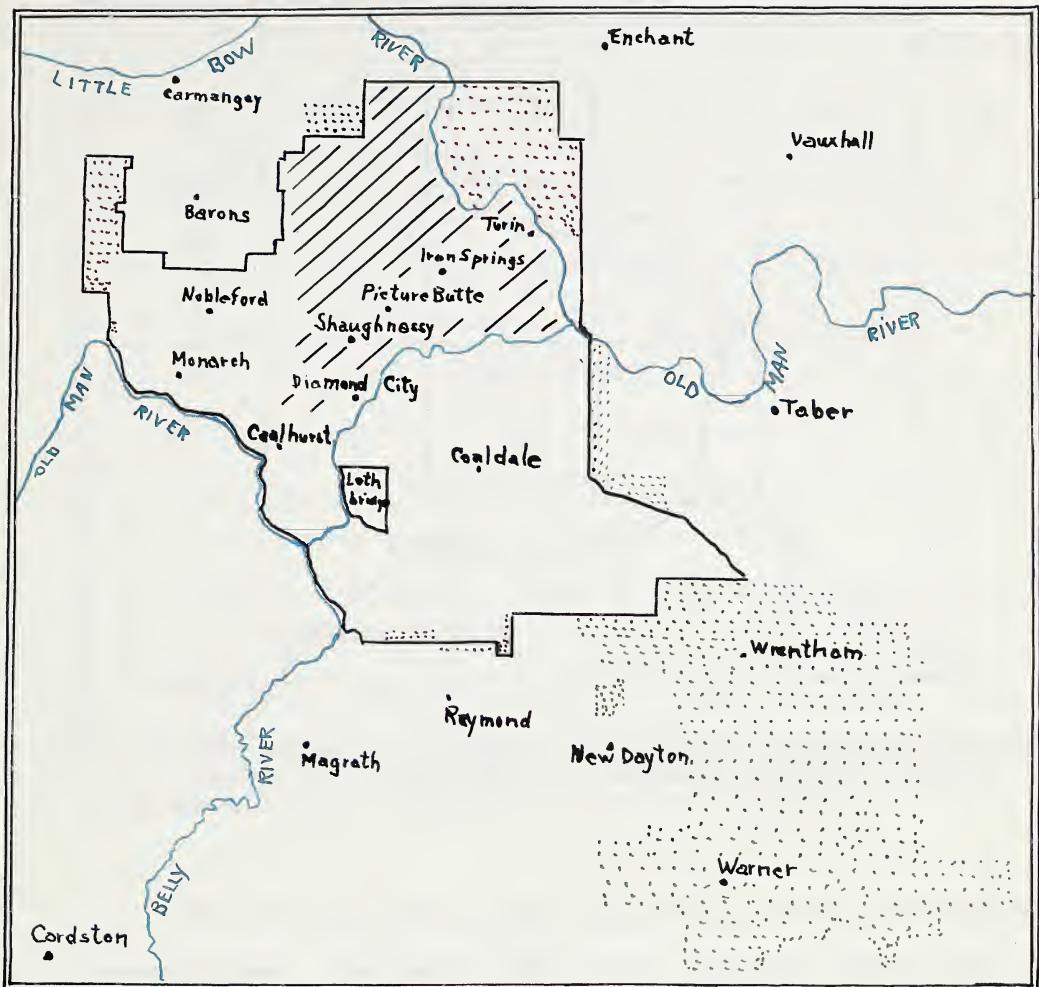


Figure 1. THE LETHBRIDGE SCHOOL DIVISION NO. 7

Scale: 1 inch to 12 miles.

#### REFERENCE

Boundaries of the Division, January 1954 \_\_\_\_\_

Areas lost by the Division in January 1954 : : : : : : : :

Areas gained by the Division in January 1954 : : : : : : : :

Area under consideration in this investigation // / / /



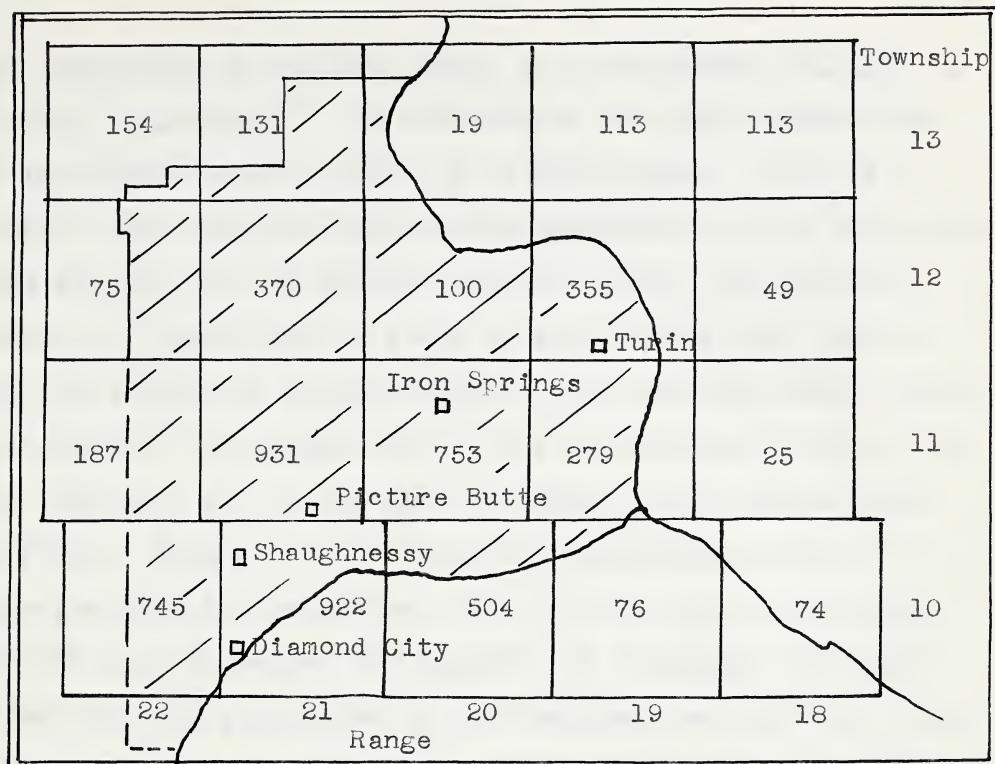


Figure 2. Population by townships in the Picture Butte area, 1951. (Scale: 6 miles to 1 inch).

The Picture Butte area comprises a total of about 300 square miles. The larger map in the appendix shows the region in some detail.

Figure 2 shows the distribution of population by townships for the area.<sup>1</sup> The populations of the hamlets, Turin, Diamond City, Shaughnessy and Iron Springs, are included here in the township figures as they are in the census report.

<sup>1</sup> The population figures are from the Dominion Bureau of Statistics, Ninth Census of Canada, 1951, Bulletin 1-2.



The population of Picture Butte, an incorporated village, is counted separately.<sup>1</sup> An estimate of the total population of the shaded area in Figure 2 is 5000 people. This is a rather rough estimate because the boundaries of the area under consideration do not follow township lines. The greatest density of population is along an axis through the hamlets and the village of Picture Butte. This does not mean, however, that most of the people live in the hamlets and village. On the contrary, by far the greater number of the people live on farms. Such a concentration of population on farms is made possible by irrigation, for, in this area, practically all the land is "under the ditch". By contrast, the Figure shows that the population in the townships east of the Little Bow River, where the land is not irrigated, is, on the average, much lower.

The people of the area are of many racial origins. In 1941 large numbers of Japanese were sent to the area from British Columbia. They were largely employed as beet workers, but many have since moved away while others have established themselves on farms or in business. For several years there has been considerable immigration from Europe. In the years just after World War II many of these were displaced persons

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<sup>1</sup> The population of Picture Butte was 865 according to the 1951 census.



from central Europe, while more recently, large numbers have come from the Netherlands and Germany. However, this immigration has not resulted in a rapid increase in population because most of the immigrants have remained here only a year or two before moving elsewhere, especially to the cities. Mr. P. M. Sauder, Director of Colonization, L.N.I.D., stated in 1950 in a letter to the writer that in his opinion no great increase in population would be likely to occur within the next few years.

The increase in population between 1946 and 1951 is probably a fair indication of the rate of growth. The total population, including Picture Butte, of the twenty townships shown in Figure 2, page 8, was 6254 in 1946.<sup>1</sup> In 1951 this total was 6840, an increase of 586. In this period the population of the village of Picture Butte alone increased from 689 to 865. Thus the rate of increase in the area exclusive of Picture Butte was 7.4%, while the increase in Picture Butte was 25.6%.

Agriculture is the main industry. Wheat is the chief grain although the coarse grains, too, are important. There are ten elevators in the area to handle the grain crop. Perhaps the most important crop, from the point of view of the number of people employed and the value of the product, is sugar beets. The sugar factory at Picture Butte, established in 1936, is a branch of Canadian Sugar Factories Limited. It processes

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<sup>1</sup> Dominion Bureau of Statistics, Census of the Prairie Provinces, 1946, Alberta Townships and Urban Centres.



annually about 130,000 tons of beets which yield about 13,400 tons of sugar. The factory employs over 300 workers during the processing period, (usually October, November and December), and about 150 during the rest of the year. A large livestock industry depends on a by-product of the sugar manufacture. The beet pulp, supplemented with grain and alfalfa, is an excellent food for fattening cattle. All winter this pulp is carried by trucks to feed lots in the surrounding area. Hogs and sheep are raised in large numbers and dairying is important.

A large coal mine is operated at Shaughnessy by the Lethbridge Collieries Limited. Coal mines were formerly operated at Diamond City (Commerce) and Picture Butte. No other minerals are of much importance, although several gravel pits are worked in the area and natural gas has been discovered near Turin.

Provincial Highway No 25 runs from Lethbridge through Diamond City, Shaughnessy, Picture Butte and Iron Springs to Turin. The Lethbridge to Picture Butte section of this road is an up-to-date, hard surfaced highway completed in 1953. The Picture Butte to Turin section is a fairly good gravelled road. Most of the district roads are used as van routes which are indicated on the map in the appendix. These roads, built and maintained by the Municipal District of Barons No 25, are nearly all graded high to prevent the accumulation of snowdrifts in winter, and many of them



have some gravel. The Canadian Pacific Railway operates a branch line from Lethbridge to Turin which carries one mixed train weekly, and more frequent freight trains as far as Picture Butte. During the beet harvest, trains operate daily carrying beets to Picture Butte. A daily passenger bus service is provided from Lethbridge to Turin by Northern Bus Lines Limited, and commercial vehicles carry on a regular trucking service over the same route.

The village of Picture Butte and the hamlets, as well as most of the rural area, are served with electricity by the Calgary Power Company. The extension of this service to the rural area has taken place mainly between 1949 and 1953. In 1953 the village of Picture Butte completed the installation of a water supply and sewage disposal system.

Two lakes have been created by the irrigation system. These are Park Lake, a fine resort and picnic grounds, and Keho Lake, a fairly large reservoir. A small reservoir adjacent to Picture Butte supplies water for the sugar factory.

## 6. Some Aspects of the History of the Lethbridge School Division No.7

The Lethbridge School Division, formed in 1937, was among the first established following the experimental ones at Berry Creek and Turner Valley. At that time the Division comprised about seventy school districts, nearly all of which



supported one-room schools. Under divisional administration centralization was rapid, resulting in a great reduction in the number of one-room schools and the establishment of multi-roomed schools. By 1953 there remained only seven one-room schools. As these were located in scattered Hutterite Colonies, they did not lend themselves to centralization. In the same year there were eighteen schools of from two to nineteen rooms, and fourteen of them had six or more rooms. This centralization was hastened, and in part made possible, by the inclusion of village and consolidated schools in the Division as follows:<sup>1</sup>

- 1940 Wrentham Consolidated School
- 1942 Readymade Consolidated School
- 1942 Carmangay Village School (transferred to the Macleod Division in 1946 and subsequently to the Vulcan County)
- 1945 Warner Consolidated School
- 1947 Nobleford Village School
- 1947 Coaldale Consolidated School

There have been no inclusions since 1947 and the boundaries of the Division have remained unchanged until 1954.<sup>2</sup> Hence the increase in the number of classrooms operated is a rough indication of the growth of the school population. The number of classrooms operated in September

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<sup>1</sup> Province of Alberta, Department of Education, Annual Report, 1948, p.109.

<sup>2</sup> Reference to the boundary changes of 1954 was made on page 6.



of each year since 1948 were:<sup>1</sup>

1948 . .	121
1949 . .	126
1950 . .	126
1951 . .	133
1952 . .	142
1953 . .	145

Since the formation of the Division, a new school, or at least a considerable addition to existing buildings, has been built at each of the nineteen centres. Most of the building has been done since 1946. The following list of the sales of debentures by the Division indicates the extent of the building program:<sup>2</sup>

1946 . .	\$100,000
1947 . .	300,000
1948 . .	250,000
1950 . .	202,800
1952 . .	120,000
1953 . .	290,000

Among the largest schools built were the following:

1947 McNally, seven classrooms.

1949 Nobleford, eight classrooms, (two classrooms added in 1951).

1950 Picture Butte, eight classrooms, (four classrooms added in 1952).

1950 Coaldale, eighteen classrooms.

<sup>1</sup> Figures for 1948 to 1951 inclusive are taken from the Annual Reports of the Department of Education, and those for 1952 and 1953 from the Superintendent's Annual Reports.

<sup>2</sup> Figures for 1946 to 1950 are taken from the Annual Reports of the Department of Education, and those for 1952 and 1953 from the Auditor's Reports.



In addition to the classrooms mentioned all of these schools have special rooms such as auditoria, laboratories, shops, home economics rooms, libraries, and offices. The building program is continuing, for there remain a few obsolete buildings to replace, and the increasing population at Coaldale and Picture Butte necessitates additional classrooms.

Centralization brings with it the problem of transportation of the pupils from their homes to the school. Table 1 gives some indication of the extent of this service in the Lethbridge School Division.

TABLE 1  
TRANSPORTATION OF PUPILS IN THE LETHBRIDGE SCHOOL DIVISION<sup>1</sup>

Year	Total daily run in miles	Maximum pupils transported in any one day	Number of buses	Cost
1947	2749	2092	61	\$ 86,807
1948	2787	2177	64	111,784
1949	2978	2356	69	115,218
1950	3160	2326	74	126,262
1951	3245	2541	78	139,978
1952	3578	2476	82	161,141
1953	3618	2652	89	184,292

<sup>1</sup> Figures for 1947 to 1951 were obtained from the Annual Reports of the Department of Education, and those for 1952 and 1953 from the Auditor's Reports for the respective years.



In 1953 about 65% of all pupils enrolled in the schools of the Division were transported daily, and the cost of this service accounted for nearly 20% of the total expenditure of the Division. These facts illustrate the magnitude of the transportation problem. Of the eighty-nine busses used in 1953, thirty-eight were owned by the Division while the other fifty-one were provided by contract with private owners.

Figure 3, page 17, shows the part of the Division under consideration in this investigation and the approximate location of the schools which existed at the time of the formation of the Division. There were then about nineteen schools, nearly all of only one room. Those indicated by O's in the Figure no longer exist, but in place of them there are now six school centres. The smallest of these, which is at Shaughnessy, is a school of four rooms. Besides the large building at Picture Butte mentioned above, new buildings have been erected at each of the other centres since the formation of the Division. The development of these centralized schools is especially noteworthy as there were no town, village, or consolidated schools in the area when the Division was formed in 1937. Although Picture Butte is a village, it was incorporated only in 1943; in fact, it is only since the establishment of the sugar factory there in 1936 that it has become the largest centre of population



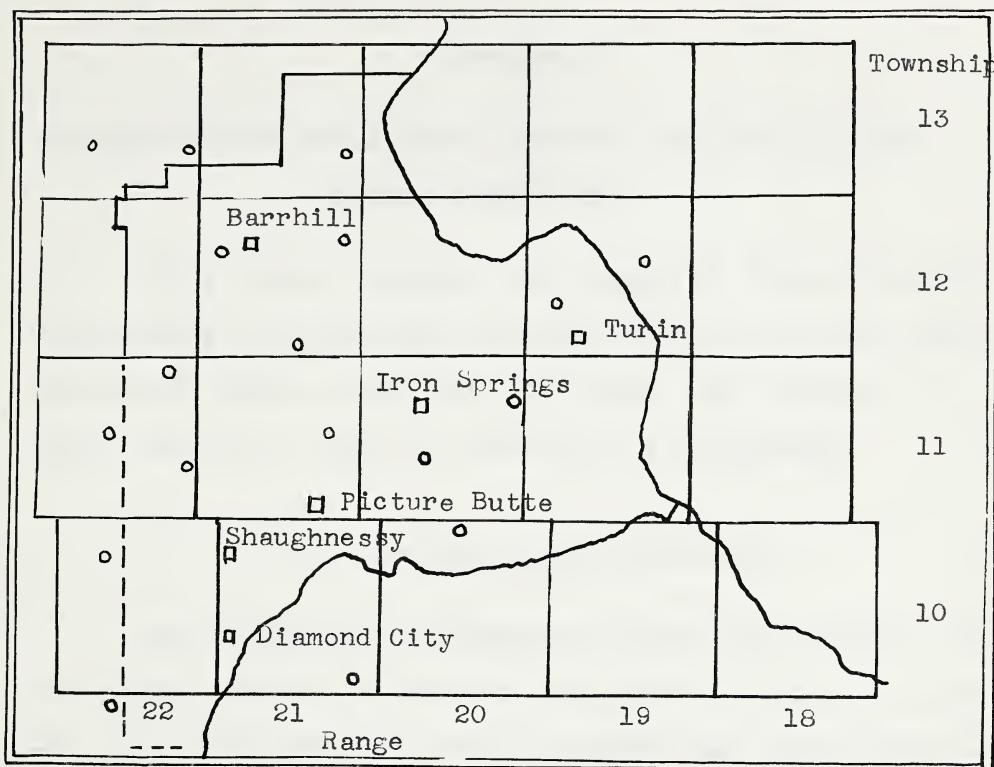


Figure 3. Location of schools in the Picture Butte area at the time of the formation of the Lethbridge School Division No. 7 in 1937.

in the area.

Brief as this sketch of the development of the Division is, it indicates that the people of the area are forward-looking in the matter of the education of their children. It seems to indicate also that the people of this area would support further improvement in facilities for education if a need were shown and a practical plan for such improvement could be found.



## CHAPTER II

### A SURVEY OF THE EDUCATIONAL SERVICES AND NEEDS OF THE PICTURE BUTTE AREA

This survey includes the schools at Turin, Barrhill, Iron Springs, Shaughnessy, Diamond City, and the two schools at Picture Butte, elementary and high. The location of these schools is shown on the map in the Appendix.

#### 1. Existing School Facilities

The number of classrooms and auxiliary rooms at the six school centres in the area are shown in Table II, page 19. All classrooms are about standard size, approximately thirty-two feet by twenty-two feet, and have the usual classroom equipment. The rooms listed under "general purpose rooms" are about equal in size to two classrooms; they are used for physical education, meetings and assemblies, music, and film showings. The auditoria-gymnasiums are larger than the general purpose rooms, and, in addition to the uses of the latter, are also used for public performances of dramatics and music, dances, and basketball. The rooms listed under the other headings require no further explanation.

The data of the table give only a rough indication of the adequacy of the various school plants. This is because there is no uniformity of construction at the



TABLE II

SCHOOL BUILDINGS IN THE PICTURE BUTTE AREA, 1953<sup>1</sup>

Kind of room	Turin	Iron Springs	Picture Butte (elem.)	Picture Butte (high)	Shaughnessy	Diamond City	Barrhill	Totals
Classrooms . . . . .	6	7	10	10	4	6	6	49
General purpose rooms . .	1	1	1				1	4
Laboratories . . . . .	1	1		1			1	4
Shops . . . . .	1	1		1		1	1	5
Home Economics rooms . . .	1	1		1		1	1	5
Offices . . . . .	1	1	1	1		1		5
Libraries . . . . .	1	1	1	1			1	5
Staff rooms . . . . .				1			1	2
Auditoria-gymnasia . . . .				1		1		2
Totals	12	13	13	17	4	10	12	81
Number of separate buildings . . . . .	4	5	3	3	2	2	1	20

<sup>1</sup> The data were obtained from the principals of the schools listed.



different centres. With the exception of Barrhill all schools are made up of two or more separate buildings. Some of these are new, some are fairly old, while others are old one-room schools which have been moved from their original locations. Except in the Picture Butte High School, laboratories, offices, libraries, and staff rooms are quite small. The only basement classrooms are in the Picture Butte Elementary School, but in some of the other schools basement rooms are used as shops, home economics rooms, and laboratories. The poorest facilities exist at the Picture Butte Elementary School and at Shaughnessy. However, a new school, to be ready for use in 1954, is under construction at Shaughnessy, and a new elementary school is planned for Picture Butte.<sup>1</sup>

All the schools are fairly well equipped. The shops are suitable for the general courses in shop subjects of the junior and senior high school. Most of the equipment is for woodworking, and includes, besides the common hand tools, some power tools such as lathes, band saws, drill presses, and grinders. However, the shops are rather small and not well provided with storage space. Home economics rooms are adequately equipped for junior high school courses and for Home Economics 1. Each school has a moving picture projector,

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<sup>1</sup>At the time this was written a site for the new school had been selected and architects' plans studied, but a contract for construction had not yet been let.



a duplicating machine, and some typewriters. Since the School Board makes a substantial annual grant for books, quite good libraries have been built up. Laboratory equipment is satisfactory for general science and chemistry, but apparatus for senior high school physics is not adequate except in Picture Butte. Very little equipment for physical education has been provided, probably due to the fact that there had been no space for indoor physical education until the recent provision of general purpose rooms and auditoria. In 1952 the School Board provided a small annual grant for this type of equipment which may ultimately remedy the present inadequacy.<sup>1</sup>

While this sketch gives a very incomplete picture of the school facilities in this area, it does show that the school authorities have succeeded fairly well in providing the special rooms and equipment needed in a modern school. For example, of the eighty-one rooms listed in Table II, page 19, twenty-five are listed under General purpose, Laboratories, Shops, Home Economics rooms, Libraries, and Auditoria-gymnasia.

## 2. Organization of the Schools by Grades

The purpose of this section is to indicate the number

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<sup>1</sup> The statements as to the adequacy of the equipment were based on information supplied by the principals of the schools.



of classrooms operated in each school, and the grades and enrolments in each classroom. This information is summarized in Table III, page 23. Although this table gives the grades and enrolments for a particular date, April 1, 1953, the organization of these schools has been fairly stable for the past five or six years with the following exceptions:

1. The number of classrooms operated in Iron Springs was increased from six to seven in September, 1951.
2. The number of classrooms operated at Barrhill was decreased from six to five in September, 1952, and again increased to six in September, 1953.
3. The enrolments fluctuate somewhat from year to year which occasionally necessitates changes in the grades assigned to certain rooms.
4. The most notable exception to the general stability is in the number of classrooms operated at Picture Butte. This number has increased from thirteen in September, 1949, to nineteen in September, 1953.

Of the seven schools, three offer instruction in Grades I to XII, usually two grades per room, and have rather small enrolments in the senior high school grades. Two schools offer instruction only up to Grade VIII and Grade IX respectively. The remaining two, the elementary and the high school at Picture Butte, are larger than the others and were, at least till 1953, continually expanding.



TABLE III

 GRADES AND ENROLMENTS BY ROOMS IN THE SCHOOLS OF THE  
 PICTURE BUTTE AREA, 1953<sup>1</sup>

Iron Springs			Turin		
Room	Grades	Enrolment	Room	Grades	Enrolment
1	1	27	1	1,2	23
2	2	21	2	3,4	29
3	3,4	33	3	5,6	30
4	5	26	4	7,8	20
5	6	24	5	9,10	16
6	7,8	33	6	11,12	9
7	9	10			

Picture Butte High			Barrhill		
Room	Grades	Enrolment	Room	Grades	Enrolment
1	6	24	1	1,2	22
2	7	23	2	3,4	29
3	7	23	3	5,6	28
4	8	30	4	7,8	22
5	9	26	5	9-12	18
6	10	31			
7	11	20			
8	12	26			

Picture Butte Elementary <sup>2</sup>			Diamond City		
Room	Grades	Enrolment	Room	Grades	Enrolment
1	1	29	1	1,2	20
2	1	30	2	3,4	25
3	2	38	3	5,6	22
4	2,3	27	4	7,8	23
5	3	38	5	9,10	28
6	4	36	6	11,12	12
7	4	36			
8	5	29			
9	5	30			
10	6	31			

Shaughnessy		
Room	Grades	Enrolment
1	1,2	19
2	3,4	21
3	5,6	22
4	7,8	26

<sup>1</sup> Enrolments are as at April 1, 1953. The data for the Picture Butte schools were obtained from the principals, and for the others from Mr. E. C. Miller, Superintendent of the Lethbridge School Division.

<sup>2</sup> Enrolments for the Picture Butte Elementary School are as at May 25, 1953.



Iron Springs and Shaughnessy have had no high school grades for several years. High school students from these schools attend Picture Butte and Diamond City high schools respectively.

### 3. Curricular Offerings of the High Schools in the Picture Butte Area

High school instruction is offered in four schools in the area, Diamond City, Barrhill, Turin, and Picture Butte. The first three are classed as two-teacher high schools; that is, two teachers give the instruction in Grades IX to XII. Although the Barrhill teaching staff was temporarily reduced in 1952-53 so that two teachers were giving instruction in Grades VII to XII, it normally has two teachers for Grades IX to XII. In addition to their two high school teachers, these schools have the services of part-time shop and home economics teachers. These teachers travel from school to school and serve Grades VII, VIII, and IX as well as the high school grades.

The number of courses offered, in terms of credits, in the two-roomed high schools is limited to ninety by regulation of the Department of Education.<sup>1</sup> To this number may be added the courses taught by the part-time teachers

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<sup>1</sup> Province of Alberta, Department of Education, Senior High School Handbook, 1952-53, p.23.



of shop and home economics subjects. Thus, if four-credit courses in these subjects were given at both the Grade X and Grade XI levels, the total number of credits could be 106. In practice, however, the total is usually between eighty and ninety-five. In Picture Butte, where about 130 credits are offered, there are four teachers, of whom one is the principal, for Grades X, XI and XII.<sup>1</sup>

Table IV, page 26, shows the actual courses offered in the four high schools in the area for two recent years. It is the practice in small schools to alternate certain courses from year to year so that a greater total number of courses may be offered over a two or three year period. Thus, the programs of two consecutive years give a fairer picture of the courses offered than does the program of any one year. The variety of courses offered depends partly on the demand by the students, but also, to a considerable extent, on the qualifications of the teachers. This is because some courses, such as typewriting, bookkeeping, dramatics, and music, may be taught only by teachers with special certificates.

The main feature of Table IV is the very limited range of courses, especially in the smaller schools at Diamond City, Barrhill, and Turin. This may be illustrated by taking as an example a student who enrolled in Grade X in

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<sup>1</sup> Picture Butte also has the services of part-time shop and home economics teachers, but instruction in these subjects in Grades X and XI is not offered each year.



TABLE IV

CURRICULAR OFFERINGS OF THE HIGH SCHOOLS IN THE PICTURE BUTTE  
AREA FOR THE SCHOOL YEARS 1951-52 AND 1952-53<sup>1</sup>

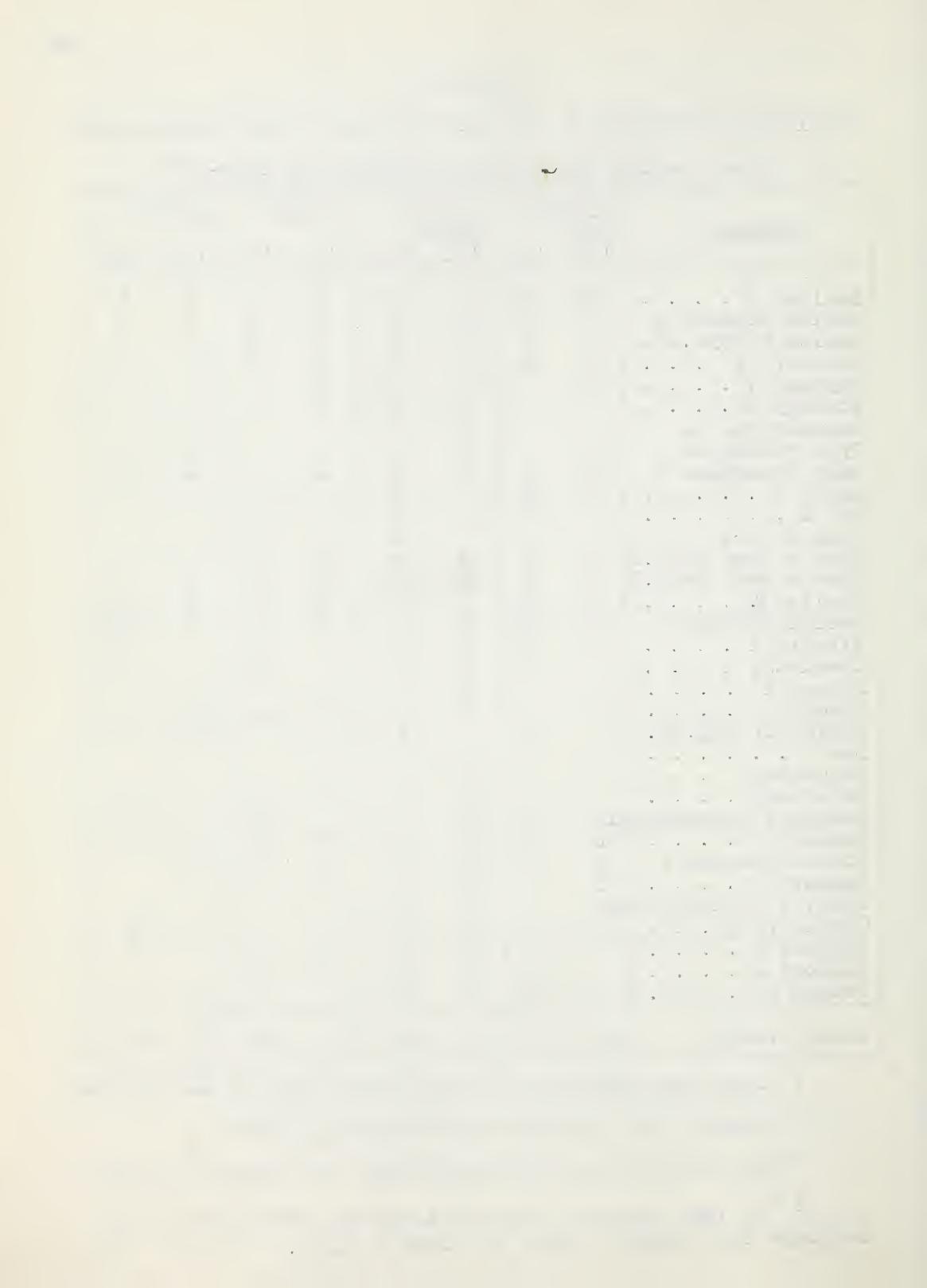
Course <sup>2</sup>	Diamond City '51	Diamond City '52	Picture Butte '51	Picture Butte '52	Turin '51	Turin '52	Barrhill '51	Barrhill '52
English 1 . . . . .	5 <sup>3</sup>	8 <sup>4</sup>	5	8	5	8	5	8
Social Studies 1 . . . . .	5	5	5	5	5	5	5	5
Health & Phys.Ed. . . . .	5	5	5	5	5	5	5	5
Geometry 1 . . . . .	5	5	5	5	5	5	5	5
Physics 1 . . . . .	5		5	5	5			
Biology 1 . . . . .			3	3	3			
Bookkeeping 1a . . . . .			3	3	3		3	3
Typewriting 1a . . . . .	3		3	3	3		3	3
Home Economics 1 . . . . .	4	4	4	4	4	4	4	4
Music 1 . . . . .	4	4		4				
Art 1 . . . . .		4	4	4		4		
Dramatics 1 . . . . .				4				
Farm & Home Mech.1 . . . . .	4	4	4	4	4	4	4	4
Farm & Home Mech.2 . . . . .	4	4			4	4	4	5
English 2 . . . . .	5	5	5	5	5	5	5	5
Social Studies 2 . . . . .	5	5	5	5	5	5	5	5
Algebra 1 . . . . .	5	5	5	5				
Chemistry 1 . . . . .		5	5	5				
French 1 . . . . .			5		5		5	5
French 2 . . . . .	5		5	5	5	5	5	5
Survey of Eng.Lt. . . . .		4		4			4	
Law 1 . . . . .			3	3	3			
Psychology . . . . .	3		3	3	3			
Sociology . . . . .			3	3	3			
Business Fundamentals . . . . .	3	3	3	3	3	3	3	3
English 3 . . . . .	5	5	5	5	5	5	5	5
Social Studies 3 . . . . .	5	5	5	5	5	5	5	
Algebra 2 . . . . .		5	5	5				
Trig. & Analytic Geom . . . . .			5	5				5
Chemistry 2 . . . . .	5	5	5	5	5		5	5
Physics 2 . . . . .			5	5				5
Biology 2 . . . . .		5	5	5	5	5	5	
French 3 . . . . .	5	5	5	5			5	5
Total credits	92	95	128	132	81	85	79	90

<sup>1</sup> Data were obtained from the principals of the schools.

<sup>2</sup> Courses are named and numbered as in 1951.

<sup>3</sup> The credit value indicates that the course was given.

<sup>4</sup> In 1952 English 1 was replaced by Literature 10 and Language 10, making a total of eight credits.



Diamond City in 1951. If he took all the courses available in Grade X he would have a total of thirty-six credits made up of:

English 1  
Social Studies 1  
Health and Physical Education 1  
Geometry 1  
Physics 1  
Typewriting 1a  
Home Economics 1, or Farm and  
Home Mechanics 1  
Music 1.

Assuming he was successful in meeting all prerequisite requirements and enrolled in all available Grade XI courses in 1952 he would have a total of thirty-five credits made up of:

Farm and Home Mechanics 2  
Art 1  
Social Studies 2  
English 2  
Algebra 1  
Survey of English Literature  
Business Fundamentals.

Again assuming he was successful, and assuming that the program offered in 1953 for Grade XII was the same as in 1951, by taking all available courses he would have twenty-three credits as follows :

Psychology  
English 3  
Social Studies 3  
Algebra 2  
Chemistry 2.

This would give him a total for the three years of ninety-four credits, six short of the number required to earn a



high school diploma. However, it is likely that a Grade XII five-credit course other than French 3 was offered in 1953 in this school, and it is quite possible that a course such as Bookkeeping 1a or Dramatics 1, not offered in either of the two previous years, was given. This would have enabled the student to make up the necessary 100 credits. But, even though he were successful in qualifying for the diploma, he would lack the general matriculation requirements of the University of Alberta. He might be able to qualify for matriculation by attending the Diamond City school another year provided the courses he needed were available; otherwise he would have to take correspondence courses or attend another school. This student has had no choice of subjects in his three years of high school. Moreover, if he obtained a "C" standing in a subject such as Chemistry 1, which would give him credit for the course but would not permit him to proceed to Chemistry 2, he would not be able to qualify for a diploma without spending an extra year in high school and repeating the course.

Picture Butte students are a little more fortunate, for they have some choice of subjects, and they can qualify for matriculation in three years. But those not interested in matriculation would find it difficult to get a diploma without taking two or three science, mathematics, or language courses at the Grade XII level.



This outline of the curricular offerings of the high schools of the Picture Butte area shows that at all four schools a student may obtain the high school diploma in three years. Matriculation standing may be obtained in three years in the Picture Butte school, but in the others four years would be required. The chief weakness of the programs is that nearly all students are forced to take the same courses. Although courses such as typing, bookkeeping, and shop are offered, they are only one-year exploratory courses, and no year-to-year sequence is provided. Thus, all students, including those of Picture Butte, must take programs that are predominantly academic.

#### 4. Enrolment by Grades and by Schools in the Picture Butte Area

The data for this analysis were taken from the Department of Education Attendance Form E302-20. This form is compiled by each school at the end of June each year and shows the total number of pupils enrolled during the year with the exception of those who transfer to other schools in Alberta. Thus, it does not show the actual enrolment at the end of June since it includes pupils who left the Province, or who left school, during the school year.

Table V, page 30, shows the total enrolments by grades for the schools at Turin, Diamond City, Barrhill, Iron Springs,

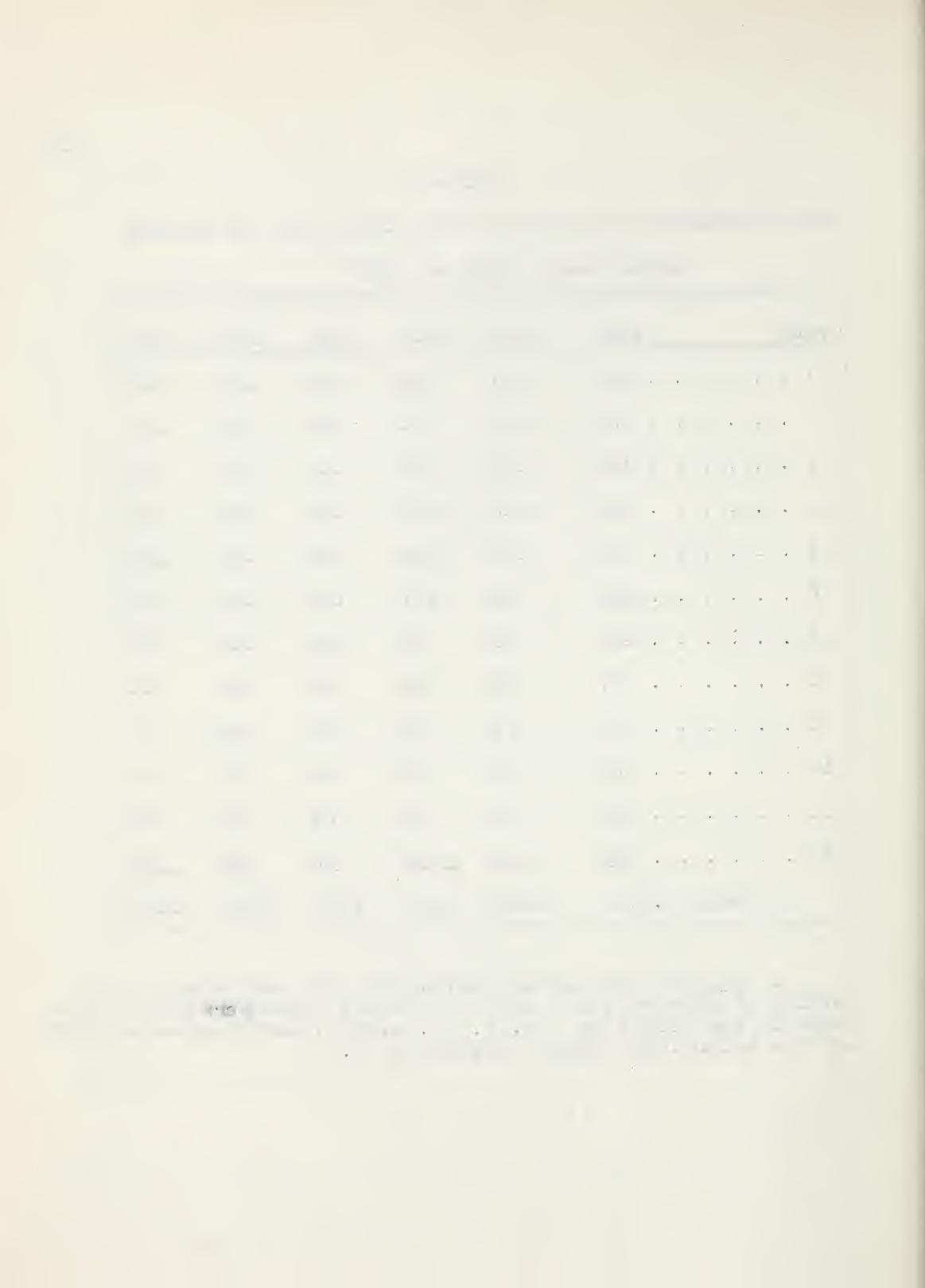


TABLE V

TOTAL ENROLMENT BY GRADES IN THE SCHOOLS OF THE PICTURE  
 BUTTE AREA, 1948 to 1953<sup>1</sup>

Grade	1948	1949	1950	1951	1952	1953
1 . . . . .	130	121	164	127	137	128
2 . . . . .	98	118	101	154	104	119
3 . . . . .	104	116	118	111	155	116
4 . . . . .	116	115	118	133	118	147
5 . . . . .	96	113	123	134	129	134
6 . . . . .	110	90	107	118	139	137
7 . . . . .	103	98	95	109	103	114
8 . . . . .	87	96	83	69	84	91
9 . . . . .	79	74	69	65	64	72
10 . . . . .	54	56	56	60	52	53
11 . . . . .	48	44	44	51	44	40
12 . . . . .	<u>48</u>	<u>43</u>	<u>45</u>	<u>45</u>	<u>46</u>	<u>40</u>
Totals	1073	1084	1123	1176	1175	1191

<sup>1</sup> Figures are the net enrolments for the school years ending in June of the respective years. Data were made available to the writer by Mr. R. M. Glover, Secretary-treasurer of the Lethbridge School Division No 7.



Shaughnessy, and Picture Butte for the past few years. The most evident features of this table are:

1. The extreme fluctuations in the enrolments in the first three grades. These fluctuations may be largely accounted for by the transient immigrant population previously described.<sup>1</sup> Immigrant children are usually placed in the first three grades regardless of their age and are subsequently accelerated according to their progress in English. Rather few immigrants are enrolled in Grades VII, VIII, and IX and very few in Grades X, XI, and XII.
2. A fairly steady increase in the enrolments in Grades IV, V, and VI.
3. The very stable condition of the enrolments in Grades X, XI, and XII. These enrolments are rather low relative to the totals.
4. An increase of 118 pupils, or about 11%, over the five year interval.

Figure 4, page 52, is based on the data of Table V and illustrates the features just mentioned. Enrolments by grades for the years 1948, 1949, and 1950 were averaged and are shown on the figure by the black line. The averages for the last three years are shown by the red line. Evidently the over all increase of 118 pupils is mostly accounted for

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<sup>1</sup> Cf. pages 9-10.



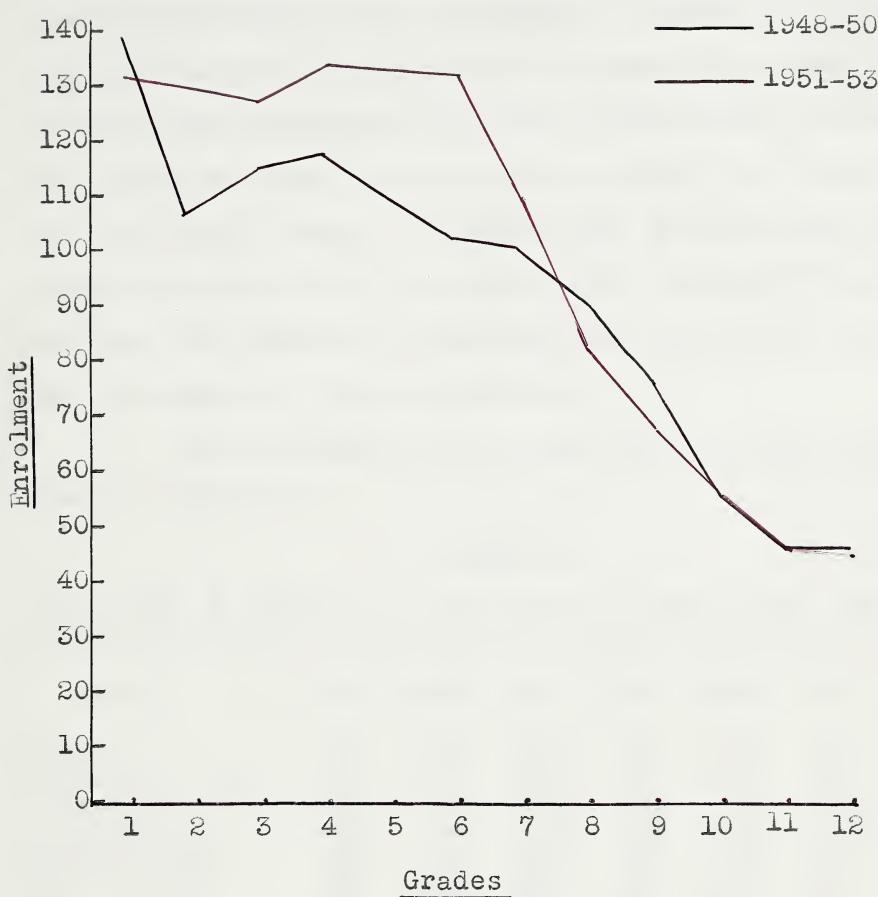


Figure 4. Average total enrolments by grades of all schools in the Picture Butte Area for the years 1948, 1949, 1950 compared with the averages for 1951, 1952, 1953



by the increases in Grades II to VI inclusive. The graphs emphasize the rapid decline in enrolments after Grade VI and the stability of the enrolments in Grade X, XI and XII from year to year. It cannot be assumed from these data that the declining enrolments following Grade VI are entirely the result of pupils leaving school, but it is likely that this is a major cause. Although this investigation is concerned primarily with the senior high school, it is pointed out that the weakness in holding power of Grades VII, VIII and IX presents a serious problem.

The enrolments by schools for the same period are shown in Table VI.

TABLE VI

ENROLMENTS BY SCHOOLS IN THE PICTURE BUTTE AREA, 1948 to 1953<sup>1</sup>

School	1948	1949	1950	1951	1952	1953	Average
Turin . . . . .	149	140	150	150	152	130	145
Barhill . . . . . <sup>2</sup>	115	116	123	113	103	122	115
Picture Butte <sup>2</sup>	398	414	475	501	515	531	472
Shaughnessy . . .	104	99	89	96	91	93	96
Diamond City . . .	134	136	141	156	143	136	141
Iron Springs . . .	173	179	145	160	171	179	168
Totals . . . . .	1073	1084	1123	1176	1175	1191	1137

<sup>1</sup> Figures are from the same source as those of Table V, page 30.

<sup>2</sup> Figures for Picture Butte include both elementary and high schools.



Although this table shows marked fluctuations from year to year in all schools, no trends are evident except in Picture Butte. The rather large increase in Picture Butte in 1950 and the decrease in Iron Springs the same year is partly accounted for by the fact that the high school students from Iron Springs, about twenty in number, were transferred to Picture Butte. About the same number of students from Iron Springs have attended at Picture Butte since that time. Making allowance for these students from Iron Springs, the net increase in Picture Butte is about 110 for the five year period. This is almost equal to the increase over the whole area under consideration.<sup>1</sup> Some increase in enrolment is shown in Iron Springs when the loss of its high school students is taken into consideration; but it appears that the school population of the area, with the exception of Picture Butte, is quite stable.

The relatively low enrolment in Grades X, XI, and XII in the schools of the Picture Butte area is shown in Table VII, page 35. The high school enrolments are given as percentages of the total enrolments for the Picture Butte area, Lethbridge City, and the Province as a whole. The percentages show a fairly steady decline in all cases, due, no doubt, to the increase in the birth rate in Alberta during

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<sup>1</sup> This could be expected as it was shown on page 10 that the population of the Village of Picture Butte had increased much more rapidly than that of the surrounding area between 1946 and 1951.



TABLE VII

PERCENTAGE OF THE TOTAL ENROLMENT IN GRADES X, XI, XII IN  
 THE SCHOOLS OF THE PICTURE BUTTE AREA, THE CITY OF LETHBRIDGE,  
 AND IN THE PROVINCE AS A WHOLE, 1948 to 1953

<u>Year</u>	<u>Picture Butte Area<sup>1</sup></u>	<u>Lethbridge<sup>2</sup></u>	<u>All Alberta<sup>3</sup></u>
1948 . . . . .	14.0%	17.5%	13.5%
1949 . . . . .	13.2	16.0	12.8
1950 . . . . .	12.9	15.4	12.6
1951 . . . . .	13.3	15.1	12.8
1952 . . . . .	12.2	14.1	12.4
1953 . . . . .	11.2	13.9	

<sup>1</sup> Figures for the Picture Butte area were calculated from the data of Table V.

<sup>2</sup> Figures for Lethbridge 1948 to 1951 were calculated from enrolments given on page 10 of "A Community College Plan For Lethbridge, Alberta" by S. V. Martorana and include both public and separate schools. Figures for 1952 and 1953 were supplied by Mr. D. S. A. Kyle, Principal of Lethbridge Collegiate Institute, and are for the public schools only.

<sup>3</sup> Figures for all Alberta were obtained from the Annual Reports of the Department of Education. The figure for 1953 was not available to the writer.



and since World War II with the consequent greater increase in the enrolments in the elementary grades. The proportion of students in high school was lower in the Picture Butte area than in the City of Lethbridge and about the same as for the Province as a whole. It could be expected that this proportion would be higher for the Picture Butte area than for the Province as a whole since in this area a high school is conveniently accessible to every student, whereas this is not the case over the whole Province.

This rather low proportion of students in the high school grades in this area indicates a weakness in the holding power of the schools. A further analysis of this will be made in the next section.

##### 5. Number of People of High School Age Who Are Not in School

Direct data on the number of people of high school age who were not in school were not available. An estimate was made, however, by inference from Table V, page 30. Students who left school before Grade IX and those who failed to qualify for the Grade IX diploma were disregarded, thus limiting this analysis to those who were eligible to enter high school. The average number of students in Grade IX in all the schools of the area for the past six years was seventy. Assuming that the same proportion qualified for Grade IX diplomas in this area as for the Province as



a whole, (about 90% according to the Annual Reports of the Department of Education), there could have been sixty-three students enrolling in Grade X each year; and, if each remained in school for three years, the average total high school enrolment would have been 189. The actual average enrolment in Grades X, XI, and XII in the schools of the area, calculated from Table V, was 145. Thus, of 189 who were eligible for high school forty-four, or about 23%, were not enrolled. The percentage of those eligible who were not attending at any given time was actually higher than this for two reasons. First, the figures of Table V, on which the estimate was based, include students who dropped out during the school year. Second, some students spent a second year in Grade XII. This fact was disregarded in making the estimate. It was assumed that the number of students leaving the area was equal to the number entering from other districts.

Another approach to the study of the number of people of high school age who are not in school was made by analyzing the individual attendance records of a selected group of students through high school. The group selected consisted of the students who enrolled in Grade X in each of the years 1948, 1949, and 1950 in the Picture Butte High School. The data are summarized in Table VIII, page 38. Of the total of eighty-seven who enrolled in Grade X over the three years, ten left the district before spending three years in high



TABLE VIII

ATTENDANCE OF STUDENTS IN THE PICTURE BUTTE HIGH SCHOOL WHO  
WHO ENROLLED IN GRADE X IN THE YEARS 1948, 1949, 1950<sup>1</sup>

Number of Students who -	1948	1949	1950	Total
enrolled in Grade X . . . . .	27 <sup>2</sup>	28	32	87
left the district <sup>3</sup> . . . . .	6	1	3	10
remained in district (net enrolment) . .	21	27	29	77
left school during or at end of Gr.X . .	5	2	4	11
enrolled in Grade XI . . . . .	16	25	25	66
left school during or at end of Gr.XI . .	5	5	5	15
enrolled in Grade XII . . . . .	11	20	20	51
left school during Grade XII . . . . .	1	4	0	5
remained in high school for at least three years . . . . .	10	16	20	46
attended Grade XII a second year . . .	1	4	3 <sup>4</sup>	8
left school before spending three years in high school (exclusive of those who left the district) . . . . .	11	11	9	31

<sup>1</sup> Data were obtained from the Daily Attendance Registers of the Picture Butte High School.

<sup>2</sup> All the figures in the first column pertain to the students who enrolled in Grade X in 1948, similarly for the 1949 and 1950 columns.

<sup>3</sup> These students were enrolled at the time they left the district, but no further information was available about them.

<sup>4</sup> These three students were still in attendance in Grade XII in April, 1954.



school and no further information was available about them. Of the remaining seventy-seven students, thirty-one left before spending three years in high school. This is a drop-out rate of about 40%. The drop-out rates for the different grades as calculated from the figures in the total column of Table VIII, page 38, were as follows: 14% during or at the end of Grade X, 23% during or at the end of Grade XI, and 10% during Grade XII. Thus the greatest drop-out rate occurred during or at the end of Grade XI.

The total high school enrolment for all schools in the area was quite stable as shown in Table V, page 30. Also about half the high school enrolment was in Picture Butte, which was the source of the sample. Therefore, it may be inferred that the drop-out rate of 40% determined for the selected sample applied to the area generally.

#### 6. Number of Students Completing Grade XII

On the basis of the drop-out rate determined in the preceding section, only about 60% of the students who enrolled in Grade X in the Picture Butte area spent three or more years in high school. But even of these, relatively few qualified for the high school diploma in any given year. Table IX, page 40, shows that the average number of diplomas earned annually in the area during the past five years was eighteen. This number is only about 41% of the average



TABLE IX

NUMBER OF STUDENTS IN THE PICTURE BUTTE AREA WHO RECEIVED  
HIGH SCHOOL DIPLOMAS, 1949 to 1953<sup>1</sup>

<u>School</u>	<u>1949</u>	<u>1950</u>	<u>1951</u>	<u>1952</u>	<u>1953</u>	<u>Total</u>
Turin . . . . .	4	2	6	4	0	16
Barrhill . . . . .	6	1	4	1	2	14
Picture Butte . . . . .	3	10	11	5	12	41
Diamond City . . . . .	2	3	5	5	3	18
Total . . . . .	15	16	26	15	17	89
Average number of diplomas earned annually . . . . .						18
Average annual Grade XII enrolment . . . . .						44 <sup>2</sup>
Percentage of Grade XII students receiving diplomas in a given year . . . . .						41%

<sup>1</sup> Data were supplied by the principals of the four schools.

<sup>2</sup> This figure was calculated from the data of Table V,  
page 30.



annual Grade XII enrolment. The percentages of the Grade XII students earning diplomas in certain other schools in recent years were as follows:

Lethbridge City Schools, 1946 to 1951 . . . . .	61% <sup>1</sup>
Lethbridge Collegiate Institute, 1952, 1953 . . . .	64% <sup>2</sup>
Red Deer Composite High School . . . . .	63% <sup>3</sup>
Taber High School 1951 to 1953 . . . . .	59% <sup>4</sup>

Some caution must be observed in the interpretation of these figures. The percentages are based on the total Grade XII enrolments. But some students spent two years in Grade XII, qualifying for the diploma at the end of their second year. Others spent an extra year in Grade XII, after qualifying for the diploma, in order to raise a mark or take an extra course for matriculation purposes.<sup>5</sup> Evidently the percentages of students enrolled in Grade XII who ultimately received diplomas would be somewhat higher than those given above. It may be assumed, however, that the effect of these factors would be about the same for the Picture Butte area.

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<sup>1</sup> S. V. Martorana, op.cit., p.12.

<sup>2</sup> Figures were supplied by Mr. D. S. A. Kyle, Principal, Lethbridge Collegiate Institute.

<sup>3</sup> Figures were supplied by Mr. D. C. Dandell, Principal, Red Deer Composite High School. The years were not specified.

<sup>4</sup> Figures were supplied by Mr. H. B. Myers, Principal, Taber High School.

<sup>5</sup> This was pointed out to the writer by Mr. Kyle.



schools as for the others. Thus, it may be concluded that the percentage of the Grade XII enrolment who received diplomas in the Picture Butte area was about 20% lower than in the Lethbridge, Red Deer, and Taber schools.

The following factors may partly account for the superiority of the latter group of schools in respect to percentage of graduates. Most of the students of the Lethbridge schools have their homes in the city; consequently their attendance is not much affected by conditions of the weather and the roads, or by problems of husbandry. It may be assumed that the Grade XII class at Red Deer is rather selected since it is the largest class in the school and includes a number of students who come from considerable distances. Most of these students are attempting to complete a matriculation program. The use of a semester system by the Red Deer school also makes comparisons difficult.<sup>1</sup> But the main difference between the two groups of schools is that those of Lethbridge, Red Deer, and Taber are larger and offer much more diversified programs than the Picture Butte area schools. It is possible that this is the major factor accounting for the difference in the percentage of graduates between the two groups.

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<sup>1</sup> These difficulties in making comparisons with the Red Deer Composite High School were suggested by Mr. Dandell in a letter to the writer.



## 7. Reasons for Students Leaving School

An attempt was made to determine the reasons for the rather high drop-out rate in the high schools of the Picture Butte area but precise information was not available. The most common reasons given by the principals of the schools were: "lack of interest" and "not academic". Thus the most important reasons would seem to be those related to the school. This agrees with the findings of the Canadian Research Committee on Practical Education.<sup>1</sup> It is doubtful that many students leave school in the Picture Butte area because of economic necessity; although, in this area where nearly half of the high school students live on farms, some may be required at home in husbandry. Moreover, many of the students from the farms have to stay out of school for a period of from three to five weeks during the beet harvest. The result is that such students are left so far behind in their school work that some become discouraged and leave school. Table X, page 44, shows the immediate post-school record of the thirty-one students shown in Table VIII, page 38, who left school before spending three years in high school. The fact that ten of these students were at home on farms lends some support to the assumption that some of the students

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<sup>1</sup> Canadian Education Association, Better Schooling for Canadian Youth, Toronto, 1951, p.9.



TABLE X

POST SCHOOL RECORD OF THE THIRTY-ONE STUDENTS SHOWN IN  
 TABLE VIII WHO SPENT LESS THAN THREE YEARS IN HIGH SCHOOL<sup>1</sup>

<u>BOYS</u>	
<u>Occupation or further training</u>	<u>number</u>
Farming (at home in most cases ) . . . . .	5
Technical School . . . . .	1
Trucking . . . . .	2
Coal Mining . . . . .	1
Construction . . . . .	1
Armed Services . . . . .	<u>1</u>
Total	11
<u>GIRLS</u>	
<u>Occupation or further training</u>	<u>number</u>
Business College . . . . .	10
Telephone operators . . . . .	3
Bank Clerks . . . . .	1
Retail store clerks . . . . .	1
At home (mostly on farms) . . . . .	<u>5</u>
Total . . . . .	20

<sup>1</sup> Information for this table was obtained from students still at school who were acquainted with those who had left.



in this area leave school because of economic necessity. The relatively large number of girls who went to business colleges indicates that the Picture Butte school might well offer more courses in line with these interests. All but five of the thirty-one students shown in Table X attended one or more courses given by the writer in the Picture Butte High School. Nearly all of these students were below the average for the school in their achievement. From this it is inferred that their reasons for dropping out are mostly related to the school; that is, either the methods of instruction used or the courses offered were not suited to the interests and abilities of these students.

#### 8. Performance of Students in Academic and Non-academic Courses

To investigate the suitability of courses to the interests and abilities of the students a comparison was made of the performances of certain students in the two types of courses, academic and non-academic. The students selected for this comparison were all the Grade X and XI students of the Picture Butte High School for the years 1949-50, 1950-51, 1951-52. The academic subjects considered were: Algebra 1, Physics 1, Geometry 1, Chemistry 1, and French 1 and 2. The non-academic subjects considered were: Bookkeeping 1a, Art 1, Typewriting 1a, Needlework, Home



Economics 1, Farm and Home Mechanics 1, and Dramatics 1. These non-academic subjects involve relatively little study of textbooks and are to a large extent manual skills. At the end of June each year the teachers of both the academic and non-academic subjects grade their students according to the following categories: "H", "A", "B", "C", "D". In the non-academic courses a grading of "C" or "D" is a failure. In the academic courses a grading of "D" is a failure but a grading of "C" is only a partial failure; that is, the student obtains credit for the course but is not permitted to proceed to the next higher course in that subject.<sup>1</sup>

Table XI, page 47, shows the distribution of the gradings of the selected group of students for each type of course. The students generally were more successful with the non-academic courses; they received higher gradings and there were fewer failures. This, of course, is probably true of the Province as a whole.<sup>2</sup> The percentage of failure in the academic subjects was actually higher than Table XI shows, for students frequently enrolled in courses which

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<sup>1</sup> Since 1953 the Regulations of the Department of Education have permitted a student to proceed to the Grade XI course of a subject with a "C" grading in the Grade X course, but he is not permitted to proceed to the Grade XII course of a subject without at least "B" standing in the Grade XI course.

<sup>2</sup>F.L.Woodman, "Promotion Practices in Non-examination subjects of Grade X", A.T.A. Magazine, 31:20, April, 1951.



TABLE XI

DISTRIBUTION OF GRADINGS IN ACADEMIC AND NON-ACADEMIC COURSES IN GRADES X AND XI OF THE PICTURE BUTTE HIGH SCHOOL FOR THE YEARS 1949-50, 1950-51, 1951-52<sup>1</sup>

Academic Courses			Non-academic Courses		
Grade	Frequency	Percentage	Grade	Frequency	Percentage
H .....	37	9.8	H.....	30	15.2
A .....	98	25.8	A.....	116	58.5
B .....	150	39.6	B.....	49	24.8
C .....	67	17.7	C.....	3	1.5
D .....	27	7.1	D.....	0	0.0
Total.....	379	100.0	Total.....	198	100.0

TABLE XII

DISTRIBUTION OF GRADINGS IN ACADEMIC AND NON-ACADEMIC COURSES IN GRADE XI ONLY OF THE PICTURE BUTTE HIGH SCHOOL FOR THE YEAR 1951-52<sup>2</sup>

Academic Courses			Non-academic Courses		
Grade	Frequency	Percentage	Grade	Frequency	Percentage
H.....	5	8.9	H.....	12	20.0
A.....	14	25.0	A.....	34	56.7
B.....	23	41.1	B.....	14	23.3
C.....	11	19.6	C.....	0	0.0
D.....	3	5.4	D.....	0	0.0
Total.....	56	100.0	Total.....	60	100.0

<sup>1</sup>Data are from the Principal's Confidential Reports to the Department of Education for the respective years. These reports were made available to the writer by Mr.C.M.Allen, Principal, Picture Butte High School.

<sup>2</sup>Data are from the same source as those of Table XI.



they dropped before the end of June while this table shows the results for only those which were continued to the end of the school year. This dropping of courses is confined almost wholly to the academic ones. Although the percentage of failures, "D" gradings, in the academic subjects was not extremely large, there was a fairly high percentage of partial failures, "C" gradings. Since this grading does not confer the privilege of proceeding to the next higher course in a certain subject, a student with two or three such gradings would find it almost impossible to complete the requirements for a diploma in his third year because he would be barred from certain Grade XII academic courses; and, in a small school, there would not be enough other courses for him to choose.

Further evidence of the higher gradings obtained by students generally in the non-academic courses is shown in Table XII, page 47, which shows the performance of the 1951-52 Grade XI class of the Picture Butte High School. This class was chosen as an example because the total number of gradings in the non-academic courses was about the same as in the academic ones. Usually there is a preponderance of the academic courses. The courses of this type available to this class were: Algebra 1, Chemistry 1, and French 2. The non-academic courses were: Art 1, Bookkeeping 1a, Home Economics 1, Farm and Home Mechanics 1, and Typewriting 1a.



In the academic courses there were 25% failures or partial failures whereas there were no failures in the non-academic courses.

The difference in the actual performance of students in the two types of courses may not be as great as Tables XI and XII indicate. Since the academic subjects are tested by the Departmental Examinations in Grade XII, a higher standard may be maintained in these subjects in Grades X and XI. Also there is no sequence in the non-academic courses offered; they are mostly of an introductory or exploratory nature. For these reasons teachers would be often inclined to give a student a passing grade for attitude and effort rather than for actual achievement. But in assigning grades in the academic courses teachers would be likely to keep in mind the minimum standard of achievement necessary for attempting the next higher course in the subject. However, even if these precautions in interpreting the data of Tables XI and XII are observed, it still appears that students who fail in the academic subjects might be better served by more non-academic subjects. The weakness of the programs in these small high schools is that no sequence of courses is provided in such subjects. Two or three successive courses in subjects such as Art or Bookkeeping would present a greater challenge to the students, and, if completed, would probably be a worthwhile achievement.



## 9. Summary of the Educational Services and Needs of the Picture Butte Area

High schools were provided at Durin, Barrhill, Picture Butte, and Diamond City. The extensive bus service enabled all students in the area to reach one of these schools. The schools were generally well equipped for the courses they offered and were staffed with well qualified teachers.<sup>1</sup> In the three smaller schools Grade IX was combined with the high school, with two teachers giving the instruction in the four grades. The staffs of all the schools were supplemented by part-time teachers of shop and home economics.

The high school programs of all the schools were very limited in scope. Students were restricted to programs containing a substantial number of the traditional academic courses in mathematics, science, and languages. Nevertheless students could not qualify for university matriculation within three years except in Picture Butte. In all schools some non-academic subjects such as typewriting, shop, art, dramatics, and home economics were offered; but, as no sequence was provided, students could not plan their programs around a core of these subjects.

The enrolments in the high school grades varied little

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<sup>1</sup> Since 1948 nearly all the high school teachers in the area were experienced teachers with university degrees.



from year to year. In the three smaller schools, Barrhill, Turin, and Diamond City, the high school classes were very small. Although an increase in enrolment in the Picture Butte elementary grades was evident, this had had no effect, at least till 1953, on the high school enrolment. The high school enrolment was relatively small, averaging only 12.8% of the total for all grades since 1948. It was estimated that of young people eligible to be in high school only about 77% were enrolled in any one year. The proportion in actual attendance was less than this since students dropped out during, as well as at the end of, a school year. The drop-out rate of students from Grade X to Grade XII, as shown by a sample from Picture Butte, was about 40%.

In spite of this high drop-out rate, the students remaining in high school three years or more were not very successful. Less than half of them qualified for the high school diploma. An average of eighteen high school graduates a year in a school system, elementary and high, of nearly 1200 pupils appears to be very low.

The programs of these high schools made very little provision for differences in aptitudes and interests among their students. The core of these programs was the academic course originally intended for the few who were preparing for higher education. But to-day it is expected that all young people should have the advantage of high school



education.<sup>1</sup> The Annual Reports of the Department of Education show the following percentages of successful candidates in the Grade IX Departmental Examinations:

1947 . . .	89.55%
1948 . . .	89.65
1949 . . .	89.86
1950 . . .	91.12
1951 . . .	91.28
1952 . . .	92.38

Thus it appears that a large, and increasing, percentage of Grade IX students is being admitted to high school. It is not likely that all of the large number of students who succeed in Grade IX are academically inclined. Therefore, the high school should make some provision for those who are not.

A diversified high school program is proposed as a solution to the problem of providing for the needs of students who are not academically inclined. Findings from this survey which indicate the usefulness of such a program are:

1. The better performance, in terms of the proportion of students graduating, of Lethbridge City, Red Deer Composite, and Taber schools where such programs are offered.
2. The better performance of Picture Butte students in non-academic subjects than in academic ones, (showing

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<sup>1</sup> This point of view will be discussed further in Chapter III.



that some students who cannot succeed in academic courses can do satisfactory work in the non-academic fields).

3. The fairly large number of students who dropped out of school to take business training or to work on farms as shown by their post school records (showing that practical courses in these fields would fill a need).

Dr. Martorana, who made a survey for a Community College in Lethbridge, stated:

The sizable drop-out rate which is now prevalent in the secondary grades represents a loss to general society. There is little argument against the proposition that the material and cultural productivity of a society is directly related to the level of education achieved by the individuals in that society. For this reason the fact that there is a sizable proportion of students who drop out of school somewhere between Grade IX and Grade XII should be a matter of concern.

Such a student mortality rate suggests the need for expansion in the curriculum at the secondary level so that more advantage is made of the interests and aptitudes of all the youth who attend at this level. In this regard a special mention should be made of the progress which has been made already in the Lethbridge Collegiate Institute in the provision of curriculums in home-making, commerce, shop, and industrial arts. These programs should be continued and strengthened. . . . a curriculum in vocational agriculture may well be justified. . . . a program in retail salesmanship or in distributive education would be fitting. . . .

Through the strengthening and addition of such non-university-transfer curriculums, therefore, there can be developed a program of offerings which has both the appeal of personal interest and that of occupational outlet to the non-university-preparatory student. As a result, a higher proportion of students would persist in attendance



in the secondary grades; the holding power of the secondary schools would be improved, and the local and general society would profit by it.<sup>1</sup>

Some general considerations relating to diversified high school programs will be outlined in the next chapter.

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<sup>1</sup> S.V.Martorana, op.cit., p.14.



## CHAPTER III

### COMPOSITE HIGH SCHOOLS

#### 1. The Need for Diversity in the High School Program

The limitations of the small high schools illustrated in Chapter II are not confined to the Picture Butte area. The drop-out rate of students has attracted the attention of laymen and educators to the objectives and the curricula of the secondary schools. The Canadian Research Committee on Practical Education set up by the Canadian Education Association in 1947 carried out, over a period of four years, an investigation into "what constitutes a suitable secondary school education for students who go directly to employment from school".<sup>1</sup> The Committee published four reports. Speaking of the Committee's second report, "Your Child Leaves School", J. G. Althouse stated:

Two features of the report are so prominent, however, that I offer no apology for bringing them to your notice. The first is that, of all Canadian children who pass through Grade VII, 59% of the boys and 51% of the girls leave school without finishing the courses they have begun -- they leave with a record of failure to accomplish what they have undertaken. The second is that the majority of these boys and girls give as the cause of their dropping out reasons which are within the power of the school system to correct, or at least to amend. The report remarks: "The school can increase retention by improving its curriculum and instruction,

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<sup>1</sup> Canadian Research Committee on Practical Education, Better Schooling For Canadian Youth, 1951, p. 1.



and by guiding students into courses suited to their abilities, aptitudes and interest." <sup>1</sup>

Among the conclusions reached in a recent investigation of the causes of high school drop-outs in southern Alberta were these:

Three-quarters of the drop-outs changed their vocational plans while in high school. The changes were all from matriculation courses to technical or commercial courses. In these fields there was a shortage of courses, therefore they left school.

Only 20% of the pupils who graduate want to go on to higher learning institutions. The others want to go to work. The academic curriculum under which these students were trained did not, apparently, meet the needs of the majority of the pupils. It is this lack of practical courses that causes many pupils, who might otherwise have remained in school, to drop out.<sup>2</sup>

There is widespread agreement that the high schools are for all young people and that the schools must provide a diversity of courses to meet the needs of such a relatively unselected group. Some statements of this point of view follow. In 1949, the Chief Director of Education for Ontario wrote:

Clearly secondary schools can no longer confine themselves to the training of selected brains for professional service; they must seek to give all our young people something that will be of specific use to each.<sup>3</sup>

<sup>1</sup> J.G.Althouse, "High Schools Must Interest and Hold More Students", School Progress, 18:25, June, 1950.

<sup>2</sup> Metro Gushaty, An Analysis of the Causes of High School Drop-outs in Southern Alberta from 1947 to 1951, (unpublished Master's thesis, The University of Alberta, 1952).

<sup>3</sup> J.G.Althouse, Structure and Aims of Canadian Education, W.J.Gage., Toronto, 1949, p.50.



A former superintendent of Calgary schools, reporting the findings of a committee set up to study the aims of high school education to-day, stated, in part:

This committee agreed that the responsibilities of to-day's high school are:

1. To be concerned primarily with the needs of the majority of its students, that is, the large group who will not go to University.

This does not mean that matriculation subjects will not be taught thoroughly and efficiently for the small group who plan on university education . . . . The emphasis will fall, however, on providing for the majority a general education, that is, a selection of subjects that will meet the varied needs of young people and prepare them for efficient living as individuals and as citizens.

2. To provide adequate accommodation and equipment to give modern courses in general and vocational education for both boys and girls.<sup>1</sup>

The first of a list of recommendations made by a conference arranged by the United States Commissioner of Education to discuss the question of high school drop-outs and what educators can do about them was, "diversify the program by providing experiences that meet the general and special education needs, interests and abilities of all students."<sup>2</sup>

Among the recommendations made by the Canadian Research Committee on Practical Education were the following:

<sup>1</sup> F.G.Buchanan, "Aims of Education in a Modern High School", -The Alberta School Trustee, December, 1945, p.16.

<sup>2</sup> "Why Do Boys and Girls Drop out of School and What Can We Do About It", an editorial, School Progress, 19:25 September, 1950.



8. That schools offer a variety of courses to suit the varied interests and aptitudes of the pupils and make provision for the ready transfer from one course to another.
35. That home economics be offered in all secondary schools and that more girls be encouraged to enrol in these courses.
36. That courses in business education be extended to include training for workers in the distributive trades as well as for office workers.
37. That courses in industrial arts be offered in all secondary schools and include, where required, specialized courses designed to develop specific skills needed in industry.
38. That agriculture be offered in all secondary schools in rural areas and include, where possible, practical courses such as farm mechanics, farm management, soil conservation, and marketing.<sup>1</sup>

The Director, Faculty of Education, Calgary, in a magazine article stated:

Our Alberta high schools must continue to prepare students for liberal arts and professional programs offered by our people's university. High school standards must not be relaxed. However, bi-lateral or multi-lateral tracks must be provided for youth of varying abilities and interests including many students of high ability whether or not they go to university.<sup>2</sup>

The principle of diversity in the high school program is advocated by the Alberta Department of Education:

The school should be organized to meet the needs of all educable youth until they are eighteen years of age. This means that the secondary school should make a determined effort to provide both for the academically minded student preparing for university entrance, and for the much larger group who, though intending to go into farming, business, or industry, would nevertheless profit from several additional years of schooling. Matriculation requirements must not hinder the

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<sup>1</sup> Canadian Research Committee on Practical Education, Better Schooling for Canadian Youth, 1951, pp. 11, 20.

<sup>2</sup> A.L.Doucette, "This Matric Business" --The Alberta School Trustee, 20:15, April, 1950.



development of a curriculum sufficiently flexible to provide for the needs of the non-matriculants.

The foregoing implies that the secondary school [should] be organized to furnish socially approved programs of a multi-track nature suited to the varied needs, backgrounds, preferences and abilities of all Alberta youth. Our past experience has proven that the non-matriculant [non-matriculants] cannot be cared for under the various matriculation patterns but will require programs suited to their own individual needs. Young people vary tremendously in their study pursuits, in terms of their backgrounds, preferences, needs and previous experience, as well as their ability. Some are satisfied with the academic program leading to university matriculation. Many are much more interested in preparing themselves for farming, homemaking, business, secretarial work, art, industrial employment and other activities of a vocational and cultural nature. University matriculation and professional training should appeal only to the few since professional opportunities are strictly limited and indeed carry no assured superiority other than in a traditional sense over the varied activities suggested above. We have weakened our high school in recent years in endeavoring to force all into the severe academic pattern of university matriculation. As a matter of fact the young people who leave high school in such numbers cannot be retained until they are provided courses consistent with their interests and ambitions. If we believe there is value in retaining these young people in the schools for a year or two longer, whether for vocational, cultural, or economic advantage, or for improvement in quality of citizenship, we must provide the variety of offerings which a multi-track program alone possesses.<sup>1</sup>

The authorities quoted above all suggest that the traditional academic high school does not satisfactorily serve the needs of all the young people of high school age. The main evidence supporting this view appears to be that there is a high drop-out rate among high school students. These

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<sup>1</sup> Province of Alberta, Department of Education, Curriculum Guide for Alberta Secondary Schools, 1950, pp.20-21.



authorities also imply that the high school should provide for all educable youth and that this can be done by adapting the curriculum to their needs and interests. The next section summarizes the attempts made by some schools to provide broadened curricula.

## 2. Attempts to Implement a Diversified Program

In many parts of Canada and the United States curricula have been set up to implement the point of view just described. One author describes schools in several small communities in the United States in which a curriculum has been developed based on the immediate needs and interests of the community.<sup>1</sup> In the rural areas of Ontario, centralized high schools, in which agricultural subjects are emphasized, have been established. An example is the Haliburton District High School, Haliburton, Ontario.

The Haliburton District is new and covers the area between Minden and Dorset, a distance of some thirty miles. Pupils are transported by bus throughout the area... The present attendance is 280 pupils... The present school contains the following accommodation: four classrooms, one library, one art room, one commercial room, one agriculture room, one home economics room, one cafeteria and kitchen, one shop, one gymnasium-auditorium, and administrative offices. From the above summary it will be seen that the school

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<sup>1</sup> Harold Spears, The Emerging High School Curriculum and its Direction, -American Book Company, New York, 1950, 400 pp.



provides the full range <sup>1</sup> of academic and vocational subjects of the modern composite high school . . . . As the Haliburton area is essentially rural in character, agricultural science is stressed . . . . <sup>2</sup>

The extent of the movement to establish such schools in Ontario and its success is summarized by Althouse:

Five years ago, a small group of schools in rural centres was meeting with success in its effort to relate their courses more closely with the agricultural interest of most of their pupils. Efforts to extend this sort of experimentation revealed two things -- they revealed a prompt public interest in the movement, and they showed that only schools with a fairly high enrolment could combine the practical agriculture course with the more traditional offerings of the schools. The first result was unprecedented activity among county councils to enlarge high school areas to make such schools possible; . . . one hundred twenty-three of these districts have been formed in five years. The second result was the construction of many fine, new buildings, specially adapted to the enriched course. These buildings present a wide range of size and elaboration . . . All of these, however, whatever their size or cost, are alike in one respect; they represent a deliberate effort to make secondary education more attractive and more retentive by incorporating into the curriculum elements of immediate interest and practical importance to the pupils in the communities in which they live . . .

By far the most convincing evidence of the effectiveness of curriculum revision as one answer to the secondary school problem is the response of the rural people to this reorganization of their high schools. Five years ago, there were 27,000 boys and girls from rural Ontario attending secondary schools; last year there were 38,000. Please remember that, although Ontario's population has shown substantial growth in those five years, that growth has not been in the rural population. More than one quarter of the rural children of high school age in Ontario who are now

<sup>1</sup> The expression "full range" seems to be used loosely here. However, the school does appear to provide facilities for some courses in all the fields of the "five-sided" composite high school.

<sup>2</sup> G.S. Adamson, "Haliburton District High School", School Progress, 22:40, April-May, 1953.



seeking a high school education would not have been attracted by the courses offered five years ago. This fact, I suggest, indicates that the laymen of rural Ontario have defined secondary education in terms of more attractive subject matter, and they like this definition.

As a matter of fact, there is mounting evidence that<sup>a</sup> similar definition of secondary education is rapidly approaching the proportions of a peremptory demand right across Canada, and is not restricted to the rural areas.<sup>1</sup>

In Alberta, high schools offering a diversified program are frequently called "composite" high schools. The following statements from a publication of the Alberta Department of Education describe these schools and imply a definition of the term "composite".

In Alberta the need has become apparent for more high schools which will provide a wide variety of academic courses and also in the same institutions make more extensive provision for prevocational training. The effort to meet these needs has led to the organization of the composite senior school, offering courses adapted to the needs of those students who hope to proceed to college as well as courses particularly suitable to those who wish to secure employment in business, farming, or the trades and crafts, or become homemakers.

A complete five-sided program of a composite high school includes in addition to the obligatory subjects of English, Social Studies, Health and Personal Development and Physical Education, courses grouped under the general headings of College Preparatory, Commercial, Agriculture, Industrial Arts or Technical, and Home Economics. Each student's individual program is composed of subjects selected from the whole

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<sup>1</sup> J.G. Althouse, "High Schools Must Interest and Hold More Students", School Progress, 18:25-26, June, 1950.



offering with a particular departmental grouping of subjects given more prominence than the others.<sup>1</sup>

It is only in some of the cities of Alberta that the above criterion of the "complete five-sided program" has been met. However, one of these schools is operated by the Red Deer School Division, a division that is mainly rural. Although the school is located at Red Deer, it serves a large number of students from the rural areas as well as those from the city of Red Deer. Several other smaller schools have programs representing a partial development of the "composite" plan. Examples are:

Athabasca	130	students,	8	teachers	(1951)	2
Cardston	155	"	7	"	(1951)	2
Taber	200	"	14	"	(1953)	3
Sedgewick	131	"	8	"	(1953)	4

In these schools the "college preparatory" or academic field still receives the greatest emphasis, but, in each case, at least one other "side" of the composite program has been developed to a considerable extent. For example, at Sedgewick five courses are offered in each of the fields, Commercial, Technical, and Home Economics.<sup>4</sup>

<sup>1</sup> Province of Alberta, Department of Education Advance in Secondary Education in Alberta, 1951, pp 11, 13.

<sup>2</sup> Ibid. p.18.

<sup>3</sup> This information was supplied by Mr. H. B. Myers, Principal, Taber High School.

<sup>4</sup> This information was supplied by Mr. C. E. Blakeney, Principal, Sedgewick School.



Although well developed "five-sided" composite high schools are not common, the program of almost every high school in Alberta represents to some extent the application of the composite principle, in that all include compulsory or core subjects, selected academic subjects, and one or more of the general elective subjects.<sup>1</sup> The point here is that the principle of diversity in the curriculum seems to be generally accepted in Alberta. However, as was pointed out in Chapter II, the inclusion of an exploratory course or two in the non-academic fields, while serving a useful purpose, does not meet the needs of the students whose main interests are in those fields.

### 3. Factors to Consider in Proposing a Composite High School in a Rural Area

It may be inferred from the foregoing that a fairly large number of students is necessary for even a partial implementation of a composite plan. Of the Alberta schools which are described as completely composite, the largest have over one thousand students, while the smallest, Red Deer and Medicine Hat, have over five hundred. Evidently an extremely large rural area would be needed to provide

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<sup>1</sup> Province of Alberta, Department of Education, Advance in Secondary Education in Alberta, 1951, p.13.



several hundred high school students. To illustrate -- the high school enrolment in the whole of the Lethbridge School Division, a large part of which is in one of the most densely populated rural areas of the Province, was only about 450 in 1953.<sup>1</sup> Thus something less than a complete five-sided program will have to suffice, at least as a starting point. The reference to the schools at Taber, Athabasca, Cardston, and Sedgewick shows that a partial composite plan is possible with an enrolment of from 130 to 200 students. It may be assumed from this that the minimum number of students necessary to warrant a worthwhile expansion of a high school program is about 130. However, to make up even this number in a rural district would necessitate the gathering of students from a rather large area. Thus a major factor in determining the advisability of establishing a composite high school is the feasibility of gathering such a number of students either by daily transportation or by the provision of dormitories.

Although it is difficult, or impossible, to gather enough students to form a complete composite high school in a rural area, the need for a diversified program is probably just as great as in the larger centres of population. Differences in ability among rural students are,

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<sup>1</sup> Annual Report of the Superintendent of Schools, Lethbridge School Division, 1953.



no doubt, as great as among city students; and, although city students may show a greater diversity of interests, this is probably because of the greater variety of their observations and experiences. Moreover, large numbers of young people from the rural areas go to the cities to work, where, as a result of the limitations of their schooling and other experience, they are at a disadvantage in comparison with the young people of the cities. The latter have, in addition to the more diversified programs of the public high schools, the advantages of technical schools, trade schools, business colleges, apprenticeship opportunities, and part-time job experiences, practically all of which are not available to the young people of the rural areas. For these reasons it may be desirable for schools in such areas to expand their high school programs even though an optimum number of students is not available. This relatively greater need for diversity in rural schools is a second factor to be considered in determining the advisability of establishing a composite high school.

A third consideration is the teaching staff — the number of teachers needed and their qualifications. It is noticeable that in composite high schools the number of teachers is rather high in relation to the number of students. In the schools listed on page 63 the number of students per teacher varies from fourteen to twenty-two.



Even in the larger composite schools such as Red Deer and Medicine Hat the number of students per teacher is only about twenty.<sup>1</sup> Thus, although a composite school may be formed by combining the enrolments of a number of small schools, it cannot be assumed that a reduction in the total number of teachers will follow. Moreover, specially qualified teachers are required for subjects such as shop and commercial work. By regulation of the Department of Education such teachers require special certificates in addition to a general teaching certificate.<sup>2</sup>

A fourth consideration is the availability of buildings and equipment. Not only are classrooms required for the large number of students to be assembled at one centre, but also special rooms with suitable equipment are needed for certain subjects. Examples are: for commercial work, a room with tables and typewriters; for dramatics, a stage; for woodwork or automotives, a specially equipped shop. Evidently the number and kind of rooms required depends partly on the total number of students and partly on the direction which the expansion of the program takes.

This direction of the expansion of the program is the fifth consideration. Ideally the courses offered

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<sup>1</sup> Province of Alberta, Department of Education Advance in Secondary Education in Alberta, 1951, p.19.

<sup>2</sup> Province of Alberta, Department of Education, Senior High School Handbook, 1953-54, p. 33.



should depend on the needs, interests and abilities of the students. These, however, do not seem to be immediately capable of very accurate determination. Therefore the experience of other schools and practical considerations of space and equipment will largely determine the initial offering of courses. A high school with an enrolment of 130 to 200 students would, no doubt, continue to offer a fairly complete selection of the academic or matriculation courses. In some Alberta schools in which the composite plan has been implemented, wholly or partially, the field which attracts the largest numbers, next to the academic, is the commercial.<sup>1</sup> Expansion in this field satisfies the criterion of practicability since one room provided with typewriters, tables and chairs, would be adequate for an offering of up to eight five-credit courses in commercial subjects. Of the remaining fields, technical, home economics, and practical agriculture, it might be assumed that in a rural area practical agriculture would be popular. This does not seem to be the case. Even at Red Deer with its excellent facilities and fairly large enrolment of rural students, the enrolments in courses in practical agriculture are very low.<sup>2</sup> In view of this situation

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<sup>1</sup> Cf. pp. 79-80.

<sup>2</sup> Cf. p. 81.



and of the considerable extra equipment required for these courses, they probably should not be included in the first stages of the implementation of the composite plan unless there is strong local support for them. The technical and home economics fields are both popular. Most students are familiar with the nature of these since exploratory or general courses in these subjects have been offered for several years in a large number of Alberta schools in the intermediate grades as well as in the high school. Whether expansion in these fields is advisable depends on the number of students available. If commercial courses are offered, it is possible that these would attract such a large number of girls that not enough would be left to warrant expansion in the home economics field. As the commercial courses do not attract as many boys as they do girls, there probably would be sufficient demand to warrant the offering of some technical courses.<sup>1</sup>

In the following chapters an attempt will be made to outline a composite-type program for a high school in the Picture Butte area and to show how it can be implemented. As the present high school program of the Alberta Department of Education provides enough courses for a fairly complete five-sided composite school, this outline is confined to courses selected from that program.

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<sup>1</sup>

Cf. pp. 79-80.



## CHAPTER IV

### A SUGGESTED PLAN FOR A DIVERSIFIED HIGH SCHOOL PROGRAM FOR THE PICTURE BUTTE AREA

The survey in Chapter II indicated that the small high schools in the Picture Butte area did not adequately meet the needs of a large number of people of high school age. In Chapter III were outlined some of the characteristics of composite-type high schools which, through a more diversified program, attempt to provide for the variety of interests and aptitudes of the present day high school population. The purpose of this chapter is to outline a program for that type of school for the Picture Butte area.

To establish such a school it is proposed to eliminate the three smaller high schools at Diamond City, Barrhill, and Turin, and to transport the high school students from those schools to Picture Butte. The program to be outlined for this school will provide a fairly complete offering of courses in the academic subjects for matriculation purposes and also a sequence of courses in the commercial and technical fields. Enough courses will be included in these two fields so that a student may plan his high school program around a core of courses in one of them. Of the considerations mentioned in the last part of Chapter III, the following are taken into account here. First, the proposed program should meet the



needs of the people of high school age better than the existing programs. Second, it should be practical in view of the expected enrolment. Third, the program should not require a great extension of existing facilities, at least in its initial stages. The remaining considerations will be dealt with in subsequent chapters.

### 1. The Location

Picture Butte is the logical location for a centralized high school offering a diversified program because:

1. It is central to the area, and even if the high schools to the west, Nobleford and Coalhurst, were ultimately included, it would still be fairly central.
2. It is the largest centre of population in the area. Its school population is nearly half of the total of the six schools under consideration, and its high school population is more than half of the total in the area.
3. The high school building in Picture Butte, completed in 1950 and extended in 1952, is well suited for the projected program.

### 2. Picture Butte High School Facilities

The school is of brick, two stories high. It has no basement except in the east end to house the furnace and boiler. Figure 5, page 72, is a rough plan of the building.



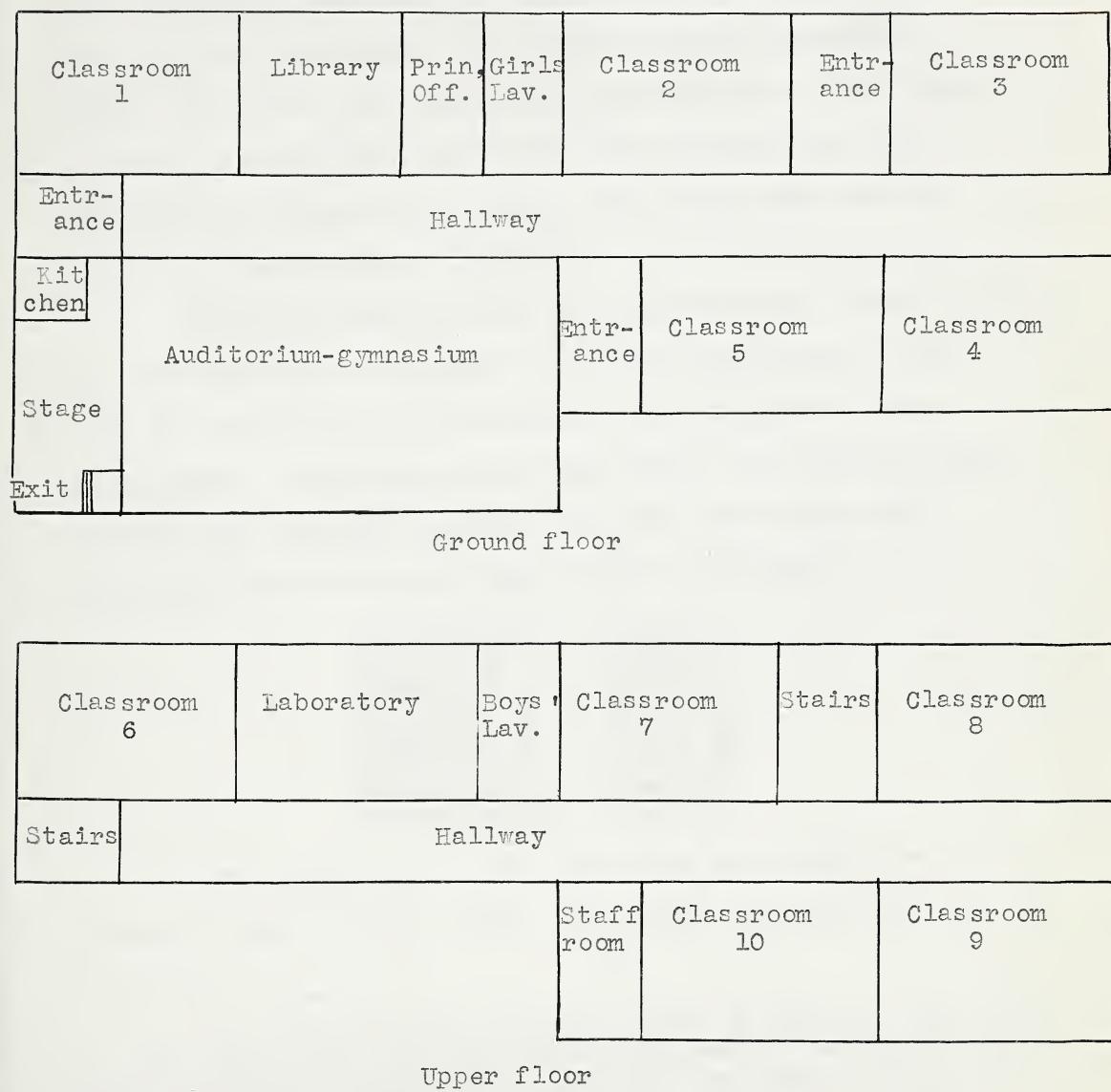


Figure 8 Floor plan of the Picture Butte High School.

Scale: 22 feet to 1 inch (approx.).



The auditorium, exclusive of the stage area, is sixty feet long by forty feet wide. It is provided with basketball goals, the one at the stage end being removable. The stage is partly equipped for dramatics. For seating there are one hundred folding metal chairs, and planks and supports capable of seating about 150 more.

The classrooms are all of standard size, about thirty-two feet by twenty-two feet. In 1952-53, Classroom 1 was used as a music room and moving picture projection room. Classroom 8, containing chairs and tables and eighteen typewriters, was used as a typing room. The remaining eight classrooms were in use as home rooms as follows:<sup>1</sup>

Classroom 2 . .	Grade 7
Classroom 3 . .	Grade 7
Classroom 4 . .	Grade 6
Classroom 5 . .	Grade 8
Classroom 6 . .	Grade 10
Classroom 7 . .	Grade 12
Classroom 9 . .	Grade 9
Classroom 10. .	Grade 11

The laboratory is the same size as a classroom. It contains six students' tables each about four feet by six

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<sup>1</sup> In 1953-54 there were two Grade 6 classes. Classroom 1, the music room, was used as a homeroom for the extra class. Music and film showings were given on the stage of the auditorium. With the completion of the new elementary school referred to on page 20, Grade 6 will no longer be housed in the high school building, thus releasing two classrooms. But it is quite possible that in a year or two Grade 8 will require two homerooms. Hence the use of rooms in the immediate future will be the same as in 1952-53 except that classroom 4 will be used for Grade 8 instead of for Grade 6.



feet covered with a non-corroding material. Each table is provided with hot and cold running water and good-sized cupboards and drawers. There is a demonstration table about three feet by fourteen feet similar in construction to the students' tables. There is a good fume cupboard with suction fan. For supplies and apparatus there is adequate cupboard space, part of it with sliding glass doors. The laboratory is well equipped for chemistry, physics, and general science.

The library, which is about two-thirds of the size of a classroom, is well supplied with shelves, tables and chairs. It is used as a study room by the Grade 12 students. It contains about 250 volumes from the Recommended Reading List for Senior High Schools and about 200 volumes from the Junior High School List. There is a wide range of reference books in science and social studies. Besides the books from the Department of Education lists there are about 400 volumes of fiction, a good deal of it by well known authors.

In separate buildings, which were originally one-room schools, are housed the shop and home economics rooms. The home economics building has a basement; the interior has been recently redecorated and the exterior improved with "insul-brick" siding. The shop building has been partially improved by shop classes, having been set on a foundation and the interior lined with "ten-test". Both the shop and home economics rooms are fairly well equipped for the courses at



present being offered.

The school is situated at the southern edge of the village on grounds of about five acres. The grounds are not nearly large enough, but the School Board has been negotiating for the purchase of additional land adjacent to the school grounds. There are no permanent playground fixtures and the landscaping has been rather neglected.

### 3. Probable Enrolment

If a centralized high school were established at Picture Butte for the high school students of Diamond City, Barrhill, Turin, and Picture Butte, the immediate total enrolment as estimated from Table V, page 30, would probably be about 150. About sixty of these would be in Grade X and about forty-five in each of Grades XI and XII. If the program of the centralized school reduced the drop-out rate, which is one of the reasons for proposing it, the total enrolment would increase somewhat from year to year. But even if all eligible students remained in high school for three years it does not appear that the total enrolment would exceed 200 for several years. The following suggested programs are based, therefore, on an enrolment of between 150 and 200 students.

The initial enrolment of about 150 students would require four homerooms, two for Grade X and one each for Grades XI and XII. In addition to the three rooms now in use



as home-rooms for these three grades, Classroom 8 could be used for part of the Grade X class. Classroom 8 is the typing room and would be continued in use as such. But there is room in it for about twenty-five desks in addition to the typewriting tables. As this room would be used for only seventeen periods per week for typewriting, it is proposed to use it for other courses also.<sup>1</sup>

#### 4. Program for the Initial Year of the Composite High School

Table XIV, page 78, suggests a diversified program for the first year of operation of a centralized high school at Picture Butte. The Department of Education has, over the past three years, adopted a new system of naming and numbering courses.<sup>2</sup> The new system is used in this and subsequent tables. For comparison Table XIII, page 77, showing the courses offered at Picture Butte in 1952-53, is included. With the exception of two electives in Grade XI, the proposed program does not add to the Grade XI and XII courses. In the first year of the suggested program the Grade XI and XII students of Picture Butte would benefit little. But students of these grades from the smaller schools would have a

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<sup>1</sup> Further reference to the use of this classroom is made on page 82 and page 87.

<sup>2</sup> Province of Alberta, Department of Education, Senior High School Handbook, 1952-53, p.8.



TABLE XIII

## PICTURE BUTTE HIGH SCHOOL PROGRAM, 1952-53

Grade X	Grade XI	Grade XII
<u>CONSTANTS</u>		
Language 10.....(5)	English 2.....(5)	English 3.....(5)
Literature 10....(3)	Soc. Studies 2..(5)	Soc. Studies 3 (5)
Soc. Studies 10..(5)		
Health and Per- sonal Development(3) <sup>1</sup>		
Phys. Education (2) <sup>1</sup>		
<u>ELECTIVES</u>		
Mathematics 10...(5)	Mathematics 20..(5)	Algebra 2.....(5)
Science 10.....(5)	Chemistry 1 ....(5)	Trigonometry &
Science 11.....(3)	French 2 .....(5)	Analytic Geom. (5)
Typewriting 10...(3) <sup>1</sup>	Survey of English	Chemistry 2....(5)
Home Economics 10(4)	Literature .....(4)	Biology 2 .....(5)
Music 10.....(4) <sup>1</sup>	Psychology.....(3)	French 3 .....(5)
Dramatics 10 ....(4)		Physics 2 .....(5)
Art 10.....(4)		
Gen. Mechanics 15(4)		
Total credits....54	.....32	.....40
Total number of credits offered in the three Grades.....	126	
Total number of teaching periods required per week .....	138	
Teaching periods by two part-time teachers in Home Economics 10 and General Mechanics 15 .....		8
Teaching periods by four high school teachers including the principal .....		130

<sup>1</sup>Two classes were given in Health and Personal Development, Music 10, Typewriting 10, and Physical Education.



TABLE XIV

SUGGESTED PROGRAM FOR THE INITIAL YEAR OF THE COMPOSITE  
HIGH SCHOOL AT PICTURE BUTTE

Grade X	Grade XI	Grade XII
<u>CONSTANTS</u>		
Language 10.....(5) <sup>1</sup> Literature 10....(3) <sup>1</sup> Soc. Studies 10..(5) Health and Personal Development 3) <sup>1</sup> Phys. Education..(2)	Language 20.....(5) <sup>1</sup> Literature 20... (3) <sup>1</sup> Soc. Studies 20..(5)	English 30.....(5) Soc. Studies 30.(5)
<u>ELECTIVES</u>		
Mathematics 10..(5) Science 10.....(5) Typewriting 10..(5) Shorthand 10....(5) Metalwork 10....(4) Woodwork 10.....(4) Mathematics 11..(5) Science 11.....(3) Bookkeeping 10..(3) <sup>1</sup> Typewriting 10..(3) <sup>1</sup> Business Fund... (3) Music 10.....(4) Art 10.....(4) Dramatics 10....(4) Home Economics 10(4) Needlework 10... (3)	Mathematics 20..(5) Science 20.....(5) French 20.....(5) Survey of English Literature 21... (4) Law 20.....(3) Psychology 20..(3) Sociology 20....(3)	Mathematics 30..(5) Science 30.....(5) Science 31.....(5) Science 32.....(5) French 30.....(5) Economics 30... (4)
Total credits 82	41	39
Total number of credits offered in the three grades.....	162	
Total number of teaching periods required per week.....	196	
Teaching periods by two part-time teachers in Home Economics 10, Needlework 10, Woodwork 10, and Metalwork 10..	15	
Total teaching periods by six high school teachers including the principal.....		181

<sup>1</sup> Two classes will be required in each of these courses.



greater choice of courses than they would have under the present system.

The main expansion in the suggested program is in the Grade X electives. The essential difference between the proposed program and the 1952-53 program is that two commercial courses and two shop courses are added. These courses, which are vocational in nature, are Shorthand 10, Typewriting 10 (5 credits), Woodwork 10, and Metalwork 10. It is the intention to suggest, for subsequent years, more advanced courses in these subjects so that students may do a fairly large part of their high school work in one of these fields.

There are several reasons for thus expanding the curriculum by including commercial and shop electives rather than other possible courses. Of the four fields, Commercial, Shop, Home Economics, and Practical Agriculture, the commercial courses have by far the largest enrolment over the whole Province, and about twice as many girls as boys are enrolled in them.<sup>1</sup> The shop courses have the next highest enrolment followed fairly closely by the home economics courses. With the exception of the Arts and Crafts courses, the shop courses are taken almost exclusively by boys and the home economics courses by girls. To warrant the offering of both commercial and home economics courses a school would

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<sup>1</sup> Department of Education, Annual Report, 1952, p. 127.



require a fairly large enrolment of girls. The experience of the Taber High School is an illustration. In that school in 1950, fifty-three girls were enrolled in Grade X. Of these, twenty-eight were classified as having commercial programs and only six as having technical (home economics) programs even though a number of home economics courses were available to Grade X students.<sup>1</sup>

Practical Agriculture enrols the fewest students. In 1951, courses in this subject were offered in ten schools in the Province but the total enrolment was only 160 students.<sup>2</sup> For this reason courses in this subject were not included in the suggested program. But such courses should probably be considered in the future. Practical Agriculture is relatively new to the Alberta High School Program, and, although enrolments are still small, interest in the subject is increasing.<sup>2</sup> The requirements of equipment, space, and specially qualified teachers probably explain why such courses are not more widely offered.

Specific examples of enrolments according to type of program selected by students are shown in Table XV, page 81. The Red Deer Composite and Taber High Schools were chosen for these examples because they offer a wide range of courses

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<sup>1</sup> The information was supplied by Mr. H.B. Myers, Principal of the Taber High School.

<sup>2</sup> Department of Education, Annual Report, 1951, p.48.



TABLE XV  
ENROLMENT ACCORDING TO TYPE OF PROGRAM IN THE RED DEER  
COMPOSITE AND TABER HIGH SCHOOLS IN 1953<sup>1</sup>

<u>Type of Program</u>	<u>Percentage of Students</u>	
	<u>Red Deer</u>	<u>Taber</u>
Academic . . . . .	65% <sup>2</sup>	20%
Commercial . . . . .	10	30
Technical (shop and home economics)	12	30
Practical Agriculture . . . . .	1	not offered
General . . . . .	12	20

and their enrolments include a large proportion of students from rural areas. The table shows that substantial percentages of the students are enrolled in commercial and technical programs. It also illustrates the low enrolments in agriculture.

The foregoing considerations appear to justify the inclusion of commercial and shop subjects in the expanded Picture Butte program. An explanation of the selection of particular courses in these subjects will now be given.

Since the Alberta High School Program provides for only two vocational commercial courses at the Grade X level,

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<sup>1</sup> The figures, which are only approximate, were supplied by the principals of the two schools, Mr. D.C. Dandell, Red Deer, and Mr. H.B. Myers, Taber.

<sup>2</sup> The large percentage of Red Deer Students classified as academic may be accounted for, in part, by the unusual nature of the Grade XII class to which reference was made page 42.



these courses are included in the proposed Picture Butte program.<sup>1</sup> Teachers of commercial subjects must have special certificates.<sup>2</sup> For the Grade X courses the Junior Certificate in the particular subjects is sufficient. However, as further expansion in the commercial field is proposed for the second and third years, for which the Senior Certificate in Commercial Subjects is required, it would be desirable to secure a well qualified commercial teacher in the first year. The school has eighteen typewriters. This would be enough as it is not likely that more than 30% of the probable Grade X enrolment of sixty would take the five-credit typewriting course. Since no other special equipment is needed for Shorthand 10 and Typewriting 10, there appears to be no great difficulty in including these courses. The typing room would be used five periods per week for the five-credit course, six periods for the three-credit courses, and six periods for Grade IX typewriting classes. This is a total of seventeen periods per week.

The Alberta High School Program lists six shop courses at the Grade X level.<sup>3</sup> The two included in the proposed Picture Butte program, Metalwork 10 and Woodwork 10, were

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<sup>1</sup> Department of Education, Senior High School Handbook, 1953-54, p. 37.

<sup>2</sup> Ibid., p. 33.

<sup>3</sup> Ibid., p. 37.



suggested by Mr. Lowery<sup>1</sup> who believed they would serve fairly well the needs and interests of the boys and would be the most practical in view of existing equipment.<sup>2</sup> The present shop building would be suitable for these two courses but additional equipment would be needed, particularly for the metalwork course. Such items as metal forming stakes, bar folder, beading machine, and welder were suggested.<sup>3</sup> The provision of teaching time for these courses would not present much difficulty. Two half-days would be required. In 1952-53 the shop teacher spent one-half day teaching General Mechanics 15 in the Picture Butte High School.<sup>4</sup> Since this course is omitted from the proposed program, this teaching time would be available for Metalwork 10 or Woodwork 10. The shop teacher spent two half-days at each of Turin and Barrhill part of which time was used to teach high school courses. As there would no longer be high school classes at those centres, he could spend an extra half-day at Picture

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<sup>1</sup> Jack N. Lowery, B.Ed., has been the teacher of shop subjects in the schools of the Picture Butte area since 1940.

<sup>2</sup> He also suggested that the course in Automotives would be very desirable but that it would require much more space than is now available and also a considerable amount of expensive equipment. Hence the inclusion of this course was not recommended for the first year.

<sup>3</sup> A detailed list of this additional equipment and its cost is given on page 119.

<sup>4</sup> Cf., Table XIII, page 77.



Butte. This would provide the additional teaching time necessary for the proposed courses.

The inclusion in Table XIV, page 78, of Shorthand 10, Typewriting 10, Woodwork 10, and Metalwork 10, as Grade X electives has now been explained. Mathematics 10 and Science 10, which are required for matriculation, are included. In addition to these six courses there are ten other electives. All of these, except Mathematics 11, have been offered in recent years at Picture Butte. Mathematics 11, a course in business arithmetic, would be of special value to the commercial students. Two classes are suggested in the three-credit Typewriting 10 course as it would probably continue to be taken by nearly all students as it has been in the past. This is not a vocational course but aims, rather, to give the students practice in the use of a typewriter for their personal needs.

All Grade X students would take eighteen credits in the constants. Assuming that in addition they took Mathematics 10 and Science 10, or Woodwork 10 and Metalwork 10, or Typewriting 10 and Shorthand 10, or any other combination amounting to eight or ten credits, they would still require two or three other electives to make up a program of from thirty-five to forty credits which is considered a full year's work. Sixty students, the expected Grade X enrollment, each choosing two or three courses from the ten



electives mentioned above would provide classes with an average enrolment of about fifteen in each of them. Some of these electives would be chosen by the students of Grade XI and XII since only five non-academic electives are suggested for these two grades. Grade XII students completing a matriculation program would need not more than one non-academic elective, others would need as many as three or four depending on their prerequisites for the Grade XII academic courses. Most Grade XI students would need two or three non-academic electives. To get a rough estimate of the enrolments in these electives it was assumed that the ninety students expected in Grades XI and XII would require an average of two non-academic electives. If each student chose one course from the five non-academic electives suggested for Grades XI and XII, there would be an average enrolment of eighteen in each. If each chose one course from the ten Grade X electives mentioned above, there would be an average enrolment of nine in each. This would bring the total average enrolment in these Grade X electives to twenty-four. On the basis of this estimate the number of electives suggested appears reasonable.

An idea of the adequacy of the program suggested in Table XIV in relation to the probable enrolment is obtained by the following calculation. The total number of teaching periods provided is 196 per week, and the expected enrolment is 150 students. The average number of credits required by each



student is estimated to be thirty-six; that is, each student would attend an average of thirty-six classes per week. Multiplying 150 by 36 and dividing the product by 196 gives 28 which is, therefore, the average enrolment per class. The largest classes would probably be in the Grade XII constants and in the Grade XI academic electives. These classes would have about forty students each. In courses where the enrolment was expected to exceed this number, two classes were provided. An average enrolment of twenty-eight per class and a maximum of forty probably indicates that the number of courses offered is satisfactory.

The total number of teaching periods per week required for the program shown in Table XIV is 196. Of these, fifteen are taught by the part-time teachers of shop and home economics subjects leaving 181 to be taught by the full-time Picture Butte teachers. Assuming that the principal taught twenty periods per week, there would remain 161 periods which would require the services of five teachers, each teaching an average of thirty-two periods per week. This number is less than the number of periods taught per teacher in 1952-53, which was about thirty-seven. But with a larger enrolment, teachers would be required for special duties such as the supervision of study periods and guidance and counselling which would require several periods per week. A total of six teachers, including the principal, for 150 students is



not unreasonable in comparison with the practice of the schools listed on page 63.

Classroom space must be provided for the 196 periods required for the proposed program, and, in addition, for six periods per week for typewriting in Grade 1X in Classroom 8. Present facilities are adequate for this total of 202 teaching periods per week as shown by the following summary:

Total number of teaching periods required per week - 202

Teaching periods per week in special rooms:

Shop - Metalwork 10, Woodwork 10 . . . . . 8

Home Economics Room - Home Economics 10,

## Needlework 10 . . . 7

Auditorium - Physical Education 10,

Dramatics 10 . . . . 8

Classroom 1 (music room) - Music 10 . . . 4

## Periods in Classrooms, 6,7,8,10 and laboratory . . 175

Classrooms 6,7,8,10 and the laboratory are available for eight periods per day, or forty periods per week, making possible a total of 200 teaching periods. Thus classrooms are available for twenty-five periods more than the number required.

Table XVI, page 88, shows a suggested timetable for

1 Twenty-seven periods per week is not the total extent of the use of these special rooms as they are used also by Grades VII, VIII, and IX for music, dramatics, physical education, shop, and home economics.



TABLE XVI

## TIMETABLE FOR THE GRADE X COURSES LISTED IN TABLE XIV

Period	Course	Class <sup>1</sup>	Days
1	Health and Personal Development . . .	A	TTF
	Health and Personal Development . . .	B	MWF
	Physical Education 10 . . . . .	A	MW
	Physical Education 10 . . . . .	B	TT
2	Woodwork 10, Home Economics 10 . . .		M
	Metalwork 10, Needlework 10 . . . .		Tu
	Literature 10 . . . . .	A	WTF
	Typewriting 10 (3-credit) . . . . .	A	WTF
	Art 10 . . . . .		MTu
3	Woodwork 10, Home Economics 10 . . .		M
	Metalwork 10, Needlework 10 . . . .		Tu
	Literature 10 . . . . .	B	WTF
	Science 11 . . . . .		WTF
	Business Fundamentals . . . . .		WTF
	Art 10 . . . . .		MTu
4	Woodwork 10, Home Economics 10 . . .		M
	Metalwork 10, Needlework 10 . . . .		Tu
	Typewriting 10 (5-credit) . . . . .		MTWTF
	Language 10 . . . . .	A	MTWTF
5	Woodwork 10, Home Economics 10 . . .		M
	Metalwork 10 . . . . .		Tu
	Shorthand 10 . . . . .		MTWTF
	Bookkeeping 10 . . . . .		WTF
	Social Studies 10 . . . . .	A	MTWTF
6	Mathematics 10 . . . . .		MTWTF
	Mathematics 11 . . . . .		MTWTF
7	Language 10 . . . . .	B	MTWTF
	Science 10 . . . . .		MTWTF
	Typewriting 10 (3-Credit) . . . . .	B	WTF
8	Social Studies 10 . . . . .	B	MTWTF
	Music 10 . . . . .		TWTF
	Dramatics 10 . . . . .		TWTF

<sup>1</sup> Where two classes are given in any course they are designated "A" and "B".



the Grade X courses listed in Table XLV, page 78. It is based on an eight-period day, which has been used in Picture Butte for several years — five in the morning, and three in the afternoon. The only difficulty in devising a timetable for these courses is the provision of periods for the shop and home economics courses. Teachers of these subjects generally prefer to have the periods for each course in a "block". In Table XVI these courses are listed for periods two to five on Monday and Tuesday. In order to make Art 10 available to as many Grade X students as possible, the periods for this course are listed in "blocks" of two periods on Monday and Tuesday. The timetable is planned so that all students may choose two electives from one of the fields, academic, commercial, or technical. The timetable partly takes into account the proposal of the Department of Education to include at least one mathematics course and at least one science course in the requirements for a high school diploma.<sup>1</sup> Of course, both these requirements need not be met in the first year of high school, but it is probably desirable to meet at least one of them. The timetable makes it possible for every student to take one mathematics course. The academic students would meet the science requirement with Science 10. Although Science 11 is available to the commercial and technical students, it would not meet this requirement because it is

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<sup>1</sup> Department of Education, Senior High School Handbook, 1953-54, p.36.



suggested here as a three-credit course. If used to meet the science requirement it must be taken as a four-credit course.

Table XVII, page 91, shows how students may choose programs of the three types, academic, commercial, and technical. These sample programs illustrate the features mentioned above. A student could, of course, choose a general course by making a selection from more than one of the three major fields.

The sample program of the technical type does not provide any electives in art, music, or dramatics, and the commercial type lacks music and dramatics. Students in these fields probably should be encouraged to choose electives from these cultural subjects. The fact that Music 10, Art 10, and Dramatics 10 are suggested here as four-credit courses causes the difficulty in making them available to the commercial and technical students. A more extensive use of the "block" system would be one way to overcome this difficulty. Another way would be to offer these courses on a three-credit basis. If this were done they could easily be made available to the commercial and technical students without changing the plan of the timetable. For example, Music 10, (three-credits) could be exchanged on the timetable, page 88, with Business Fundamentals. Similarly Dramatics 10 (three-credits) could be exchanged with Bookkeeping 10. Another alternative would be to omit a course such as



TABLE XVII

SAMPLES OF INDIVIDUAL GRADE X PROGRAMS SELECTED FROM  
THE TIMETABLE IN TABLE XVI

Academic Type	Commercial Type	Technical Type
Health and Personal Development	Health and Personal Development	Health and Personal Development
Physical Education	Physical Education	Physical Education
Literature 10	Literature 10	Literature 10
Language 10	Language 10	Language 10
Social Studies 10	Social Studies 10	Social Studies 10
Mathematics 10	Shorthand 10	Woodwork 10, or Home Economics 10
Science 10	Typewriting 10	Metalwork 10, or Needlework 10
Bookkeeping 10, or Dramatics 10, or Music 10	Science 11, or Business Fundamentals	Mathematics 10, or Mathematics 11
Business Fundamentals 10, or Typewriting 10, or Science 11	Mathematics 10, or Mathematics 11	Bookkeeping 10
Art 10	Art 10	Typewriting 10, or Science 11, or Business Fundamentals
Maximum credits...39	Maximum credits...40	Maximum credits...37



Business Fundamentals from the program and substitute an additional class in one of the cultural subjects. This could be done if there appeared to be sufficient demand for one of these subjects to warrant the offering of two classes in it.

##### 5. Program for the Second Year of the Composite High School

The extent of expansion of the program in the second year of operation of the centralized high school would depend on the total enrolment. As was shown in the analysis of the enrolments for recent years in the schools of the Picture Butte area on page 34, there is no indication of a substantial increase in the high school enrolment within the next few years. There is a possibility that following the introduction of the diversified program in Grade X there would be fewer drop-outs during and at the end of this grade. But it appears very unlikely that the total enrolment for the second year would exceed by ten the enrolment for the initial year. Therefore no very great expansion of the program seems to be warranted.

To provide a sequence of courses in commercial and shop subjects it is proposed to add two courses in each of these fields at the Grade XI level. The Senior High School Handbook lists five such commercial courses: Bookkeeping 20, Shorthand 20, Office Practice 20, Typewriting 20, and Clerical Practice 20.<sup>1</sup>

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<sup>1</sup> Department of Education, Senior High School Handbook, 1953-54, p.57.



These are all five-credit courses except Shorthand 20 which may be offered as five or eight credits. The first three of these courses have the corresponding Grade X courses as prerequisites, while Office Practice 20 and Clerical Practice 20 have no prerequisites. The inclusion of one of these latter courses would, therefore, make it available to more students. Apart from this consideration any two of the five might be chosen, but to give a specific example, Typewriting 20 and Office Practice 20 are suggested. No additional special equipment would be needed for these courses; classroom space would be available as shown on page 87, and, assuming a qualified commercial teacher was secured in the initial year of the plan, there appears to be no difficulty in making this addition to the program.

Six shop courses are listed for Grade XI in the Senior High School Handbook all of which may be offered as eight or ten credits, and all have the corresponding Grade X courses as prerequisites. As Woodwork 10 and Metalwork 10 were suggested for Grade X in the initial year, Woodwork 20 and Metalwork 20 are suggested for Grade XI in the second year of the plan. It is suggested that these be offered as eight credits rather than as ten to make it easier for students choosing them to fill out their programs from other courses on the timetable. The inclusion of these shop courses presents some difficulties, especially in their requirements



of teaching time and of equipment. The one shop teacher provided for the first year would teach eight periods or one full day in the high school, and the rest of his time would be taken up with Grades VII, VIII, and IX in Picture Butte, Iron Springs, Turin, and Barrhill. It is evident that an additional shop teacher would be needed in the second year. The shop work in Grades VII, VIII, and IX in the four schools would be enough to require a full-time teacher. By providing a teacher for this work, the shop circuit could be maintained as at present. Therefore it is suggested that a full-time shop teacher be secured for the Picture Butte High School. He would be needed for only twenty-four periods, or three full days, per week for shop classes, but he could teach some other high school classes as well.

The Grade XI courses in Woodwork and Metalwork would require additional equipment of which the largest and most expensive item would be a metalworking lathe. The extra equipment would require extra space; hence a new shop building or at least an extension of the existing building would be required.<sup>1</sup>

The proposals for the second year of the composite high school are summarized as follows: the program would be

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<sup>1</sup> Further details regarding these items, and their cost, are given on pages 118-122.



increased by twenty-six credits requiring twenty-six teaching periods, ten periods for Grade XI commercial courses, and sixteen for Grade XI shop courses; the teaching staff would be increased from six to seven full-time teachers one of whom would be a shop teacher.

Table XVIII shows the total number of teaching periods and how they would be distributed among the teachers. It was assumed here, as in the first year, that the principal would teach twenty periods per week. The average number of periods per week for the other teachers would be thirty-three, which would be about the same as the average for the initial year.<sup>1</sup>

TABLE XVIII  
DISTRIBUTION OF THE TEACHING LOAD IN THE SECOND YEAR OF  
THE PROPOSED HIGH SCHOOL PROGRAM

Teaching periods per week in the initial year . . . . .	196 <sup>2</sup>
Periods added in the second year . . . . . . . . . . .	26
Total periods in the second year . . . . . . . . . . .	222
Periods taught by part-time home economics teacher .	7
Periods taught by the principal . . . . . . . . . . .	20
Periods taught by six full-time staff teachers . . . .	195
Average number of periods per week per teacher . . . .	33

<sup>1</sup> Cf. page 86.

<sup>2</sup> Cf., Table XIV, page 78.



## 6. Program for the Third and Subsequent Years of the Composite High School

Again enrolment will be the major factor determining the extent of expansion of the program in the third year. It is assumed that enrolment will remain fairly stable; hence few additions are proposed. It is desirable that one additional course be offered in each of the commercial and shop fields, preferably at the Grade XII level, to enable a student to take a complete three year sequence in at least one subject. Typewriting 30 or Shorthand 30 could be offered; but if the enrolment should be too small to warrant either of these, a third commercial course could be offered at the Grade XI level. The addition of one commercial course would present no difficulties as to teaching time, classroom space or equipment.

In the shop subjects either Woodwork 30 or Metalwork 30 could be offered. These courses may be given as ten or fifteen credits. Assuming that one of these courses were given on a ten credit basis, the number of additional teaching periods would be only two. The reason for this is that where enrolments are small, classes in Woodwork 20 and 30 and in Metalwork 20 and 30 are combined. It is very likely that the Picture Butte classes would be small enough for this arrangement. As the two proposed additions, Typewriting 30 and either Metalwork 30 or Woodwork 30, would require only



seven additional teaching periods per week, the increase in the teaching load per teacher would be negligible.

Table XIX, page 98, shows the suggested program for the third and subsequent years. All students would enrol in the constants of this program, giving them a total of forty-one credits. A student taking an academic course would take Mathematics 10, 20, and 30, Science 10, 20, 30, 31, and, possibly, 32, and French 20 and 30 for a total of fifty credits. A student in commercial work could take Typewriting 10, 20, and 30, Shorthand 10 and Office Practice 20 for a total of twenty-five credits. A student in shop work could take Woodwork 10, 20, and 30, and Metalwork 10 and 20 for a total of thirty-four credits. Besides these courses there are fifteen other electives, excluding Home Economics 10 and Needlework 10, from which all students may choose to make up the diploma requirement of 100 credits.

If the total enrolment should exceed that estimated in proposing this program, two major modifications of the plan in the third and subsequent years probably would be necessary. First, it might be necessary to offer two classes in the Grade XII constants, English 30 and Social Studies 30. To do this without curtailing the total program an additional teacher would be needed. Second, if the enrolment in the Grade XII shop course were fairly large, or, if it were considered desirable to include more shop courses, an



TABLE XIX

SUGGESTED PROGRAM FOR THE THIRD AND SUBSEQUENT YEARS OF THE  
COMPOSITE HIGH SCHOOL AT PICTURE BUTTE

Grade X	Grade XI	Grade XII
<u>CONSTANTS</u>		
Language 10.....(5) <sup>x</sup> Literature 10....(3) <sup>x</sup> Soc. Studies 10.(5) <sup>x</sup> Health and Personal Development3) <sup>x</sup> Phys. Education. (2) <sup>x</sup>	Language 20.....(5) <sup>x</sup> Literature 20....(3) <sup>x</sup> Soc. Studies 20.(5) <sup>x</sup>	English 30.....(5) Soc. Studies 30(5)
<u>ELECTIVES</u>		
Mathematics 10..(5) Science 10.....(5) Typewriting 10..(5) Shorthand 10....(5) Metalwork 10....(4) Woodwork 10.....(4) Mathematics 11..(5) Science 11.....(3) Bookkeeping 10..(3) Typewriting 10..(3) <sup>x</sup> Business Fund... (3) Music 10.....(4) Art 10.....(4) Dramatics 10....(4) Home Economics10.(4) Needlework 10... (3)	Mathematics 20..(5) Science 20 .....(5) French 20.....(5) Typewriting 20..(5) Office Practice20.5 Woodwork 20.....(8) Metalwork 20....(8) Survey of English Literature 21... (4) Law 20.....(3) Psychology 20... (3) Sociology 20....(3)	Mathematics 30. (5) Science 30.....(5) Science 31.....(5) Science 32.....(5) French 30.....(5) Typewriting 30..(5) Woodwork 30... (10) <sup>xx</sup> Economics 30 (4)
Total credits...82	.....67	.....54
Total number of credits offered in the three grades.....	203	
Total number of teaching periods required.....		229
Teaching periods by part-time teacher in Home Economics... 7		
Total teaching periods by seven high school teachers including the principal.....		222

<sup>x</sup> Two classes required for each course marked with an asterisk.

<sup>xx</sup> Eight of these ten periods to be combined with Woodwork 20.



additional shop room would be needed. The reason for this is that following the introduction of the second year of the program, the shop room would be in use for practically all periods of the week, twenty-four periods or three days for high school courses, and the remaining two days for shop classes in Grades VII, VIII, and IX.

#### 7. Readjustments in the Organization of Other Schools in the Area

The schools at Shaughnessy and Iron Springs would not be affected since they have had no high school classes for several years. The teaching staffs at Diamond City, Barrhill, and Turin would be reduced by one each. As these schools have, at present, one classroom for Grades IX and X and one for Grades XI and XII, the loss of Grades X, XI, and XII would result in changes in the distribution of grades to classrooms. This, however, is a problem that occurs in most schools from time to time. Each of these schools would have an extra room which, no doubt, could be used for special purposes such as a typing room, a projection room, a library, or a play room.

Equipment for science, shop, home economics, typing, and physical education would still be in use for Grades VII, VIII, and IX in these three schools. Library books that are useful only for the high school grades could be transferred



to Picture Butte.

No serious problem of readjustment in these schools is apparent. In at least one respect the loss of the high school grades could be an advantage. In schools with Grades I to XII, the principal, who is always a teacher of high school grades and predominantly occupied with those grades, cannot give to the elementary and intermediate grades the attention which could otherwise be expected.

#### 8. Summary

While a rather definite program has been outlined and specific courses suggested in this chapter, the aim was to show how the development of a composite type program could proceed rather than to prescribe a certain list of courses. The considerations which determined the expansion in the commercial and shop fields probably have some weight, but actual experience may show that expansion in other fields would be better. The program outlined for the first year is wide enough that it may have an exploratory function, and experience in the first year would be a basis for making modifications in the second and subsequent years of the plan.

The establishment of the proposed composite high school is to be accomplished in three successive years by adding courses in commercial and shop electives first in Grade X, then in Grade XI, and finally in Grade XII. In this school



a student would then be able to pursue, through his three years of high school, an academic course leading to matriculation, or a commercial course, or a technical course, or, by choosing from all fields, a general course. Any one of these courses would qualify him for the high school diploma. To provide the instruction in this school the teaching staff is to be increased from the four at present to seven, one of whom is to be a commercial teacher, and one a shop teacher. Shop facilities are to be improved by the provision of a considerable amount of extra equipment, and, in the second year, by some additional building. Apart from these requirements, no extra building and little extra equipment are needed.



## CHAPTER V

### GETTING THE STUDENTS TO THE SCHOOL

Although the preceding chapters have shown that a composite-type high school for the Picture Butte area is desirable and that a program for it is feasible, there still remains the considerable problem of getting the students to the school. A summary of this transportation problem is shown in Table XX.

TABLE XX

#### STUDENT TRANSPORTATION REQUIREMENTS FOR THE PROPOSED CENTRALIZED HIGH SCHOOL AT PICTURE BUTTE

Home School	Number of Students <sup>1</sup>	Distance from Picture Butte	Route
Diamond City	24	9 miles	all on Highway No. 25
Turin	16	16 miles	all on Highway No. 25
Iron Springs	21	8 miles	all on Highway No. 25
Barrhill	10	11 miles	4 miles on Highway No. 25 and 7 miles on district roads

At present most of the high school students as well as those of the lower grades are gathered by bus and taken to

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<sup>1</sup> These figures are the net enrolments in Grades X, XI, and XII for 1952-53.



their home schools. As the high school students are very widely scattered it would be entirely impractical to provide special busses to gather them from their homes and take them directly to Picture Butte. Evidently they would have to be taken to their home schools as they are at present and then transported by special busses to Picture Butte. In order to allow time for the trip to Picture Butte adjustments would have to be made in the present bus schedules and school timetables. Such adjustments would affect not only the high school students but nearly all students of the four centres shown in the table.

### 1. The Transportation of Iron Springs Students

Since September 1949 the high school students from Iron Springs have been transported to Picture Butte; hence an analysis of this case might indicate how the problem could be solved for the other centres. The following data were obtained from a questionnaire answered by all the students from the Iron Springs district who were attending the Picture Butte High School in April 1953. Of the twenty-one students involved, sixteen were first taken from their homes to Iron Springs, while the remaining five lived along the highway between Iron Springs and Picture Butte and were taken directly to Picture Butte. The bus left the Iron Springs school about 8:35 a.m. and arrived at Picture Butte about



8:55. The earliest any student had to leave home was 8:00 am., the average being about 8:15.<sup>1</sup> The latest any student reached home was 4:15 p.m., the average being about 4:00. The maximum total distance travelled by any student in one day was thirty-four miles, twelve miles in the morning and twenty-two in the afternoon. This student left home at 8:20 and arrived home at 4:15. Very few students had to walk an appreciable distance to catch the bus; in most cases the bus stopped at the student's gate.

It is not likely that the transportation arrangement just described works a hardship on the high school students. According to some authorities, a bus ride of one hour, morning and afternoon is not considered excessive.<sup>2</sup> But most of the younger pupils are forced to adopt the same schedule and for them it may be rather strenuous. These students do not have a longer bus ride than they would have if the high school students were not taken to Picture Butte. But they have to leave home earlier in the morning and arrive home

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<sup>1</sup> Two students, of the same family, left home at 7:55 and travelled nearly two miles by car to catch a bus. These students were actually in the Turin district, having moved there during the school year, but continued to attend the Picture Butte school by choice.

<sup>2</sup> W.G. Reeder, The Fundamentals of Public School Administration, Macmillan, New York 1947, p.425.

American Association of School Administrators, Schools in Small Communities, The Association, Washington, 1939, pp. 229,242. This work adds the qualification, "The distance which pupils may travel will depend on age and travel conditions."



later in the afternoon. Some of them are away from home for eight hours or more, which is a rather long school day for young pupils.

This arrangement also causes some inconvenience to the Iron Springs teaching staff. School hours in Picture Butte for the past few years have been from 9:00 to 12:10 and from 1:30 to 3:30. In Iron Springs the hours have been from 9:00 to 12:00 and from 1:10 to 3:40; that is, the Iron Springs students are dismissed at about the time the bus arrives from Picture Butte. Thus the Iron Springs school day has been lengthened slightly. Moreover, extra pupil supervision is involved there since nearly all pupils arrive at school about ten minutes earlier than they otherwise would. Also the Iron Springs staff is responsible for the supervision of the high school students while they are waiting there to transfer from one bus to another.

Irregularities in bus schedules occur as a result of weather and road conditions and, more rarely, as a result of mechanical breakdowns. Although the roads are generally good, many are not gravelled; consequently rain or drifted snow may delay certain busses. Thus it happens occasionally that the Iron Springs students are a few minutes late at Picture Butte. A record of the times of arrival and departure of the Iron Springs bus was kept for the writer by a Grade XII student for a two-week period in April 1953. A similar record was



kept for a two-week period in February 1954. The summary of the records, shown in Table XXI, illustrates the irregularity.

TABLE XXI

ARRIVAL AND DEPARTURE TIMES OF THE PICTURE BUTTE TO IRON  
SPRINGS BUS FOR TWO TWO-WEEK PERIODS

	April 1953			February 1954		
	Earliest	Latest	Average	Earliest	Latest	Average
Left Iron Springs	8:29	8:55	8:41	8:27	8:40	8:32
Arrived at Picture Butte	8:45	9:10	8:59	8:45	8:57	8:49
Left Picture Butte	3:25	3:25	3:25	- <sup>1</sup>	-	-
Arrived at Iron Springs	3:40	3:46	3:42	3:40	3:53	3:45

The record for April 1953 was kept during an unusually rainy period — it rained on five of the ten days on which observations were made. Consequently this record probably shows the extremes of irregularity rather than the normal schedule. The record for February 1954 was kept during a period of comparatively good weather. This record shows greater regularity in time of arrival at Picture Butte — a maximum variation of twelve minutes compared with twenty-five on the first record. But the time of arrival in Iron

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<sup>1</sup> Record of the time of leaving Picture Butte was not kept in February 1954.



Springs was more irregular than in April 1953. The time of leaving Picture Butte was not recorded during the second period because this is almost always 3:25. Unfortunately during this period the bus was a few minutes late in leaving Picture Butte on two occasions. This would account for the greater irregularity in the times of arrival at Iron Springs. The records for the individual days showed rather little variation in the actual running time between Picture Butte and Iron Springs. The fastest time was fifteen minutes and the slowest twenty-one minutes, the average being approximately seventeen minutes. This indicates that delays on the run between Iron Springs and Picture Butte, where the route is along Highway No. 25, are rare.

A comparison of the attendance of Iron Springs and Picture Butte high school students was made to determine whether the former were at a disadvantage in this respect. Table XXII, page 108, shows a summary of the average attendance of the two groups for the years since the Iron Springs students have attended the Picture Butte High School. The figures show the average number of days attended during the school year by each group. In this table, the attendance of students who left school before the end of June in each year was disregarded. The reason for this is that the inclusion of the attendance of students who attended only a few days and then left would have a disproportionate



TABLE XXII

AVERAGE ATTENDANCE OF IRON SPRINGS AND PICTURE BUTTE STUDENTS  
AT THE PICTURE BUTTE HIGH SCHOOL FROM 1949 TO 1953<sup>1</sup>

Year	Iron Springs Students		Picture Butte Students	
	Number of Students	Average Attendance	Number of Students	Average Attendance
1949-50	14	169 days	56	176 days
1950-51	19	166 days	53	177 days
1951-52	12	162 days	47	167 days
1952-53	22	164 days	49	166 days

effect on the Iron Springs averages since the Iron Springs enrolment is small relative to the Picture Butte enrolment.

From the table it appears that the Iron Springs students are at a disadvantage as to attendance. However, it cannot be concluded that this disadvantage is entirely due to the irregularities of bus transportation, for, whereas most of the Iron Springs students live on farms and are required at home for some time during the beet harvest, more than half of the Picture Butte district students have

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<sup>1</sup>The figures were obtained from the Daily Attendance Registers of the Picture Butte High School.



their homes in the village and are not much affected by problems of husbandry. Actually it is very rarely that the bus fails to make the trip from Iron Springs to Picture Butte. Such a failure has occurred only three or four times since 1949. Thus, if a student reaches Iron Springs, he can almost always go to Picture Butte. But it sometimes happens that a bus serving the Iron Springs school cannot cover its full route because of blocked roads. When this happens some students will be left behind.

In spite of these difficulties and inconveniences the transporting of Iron Springs high school students to Picture Butte appears to be satisfactory to the people concerned. The writer has heard of no movement to have a small high school re-established at Iron Springs.

## 2. The Transportation of Diamond City Students

The distance of Diamond City from Picture Butte is only one mile greater than the distance from Iron Springs to Picture Butte. Thus, a transportation plan similar to that serving Iron Springs could be adopted with no greater inconvenience than has been experienced by Iron Springs. There are some factors which make the problem less difficult than for Iron Springs: the route is entirely along that portion of Highway No. 25 which is hard-surfaced; most of the district roads in the Diamond City and Shaughnessy area are



gravelled; and many of the Diamond City students live at Shaughnessy which is only about four and one-half miles from Picture Butte.

### 3. The Transportation of Turin and Barrhill Students

Turin is sixteen miles east of Picture Butte on Highway No. 25. Since this is eight miles greater than the distance of Iron Springs from Picture Butte, the transportation problem would be more difficult than in the Iron Springs case.

Data on times of leaving home in the morning and of arrival home in the afternoon were obtained in February, 1954, from a questionnaire answered by students attending Turin School. Thirty students in Grades VII to XII, which was practically all of the students of those grades who travelled by bus, answered the questionnaire. The time of leaving home varied from 8:00 a.m. to 8:40 a.m., the average being 8:18 a.m. Six of the thirty students left their homes at 8:00. The time of arrival at home varied from 3:45 p.m. to 4:30 p.m., the average being 4:00 p.m. Only two students arrived home as late as 4:30 p.m. These were students from the Sundial area east of the Little Bow River which was added to the Lethbridge School Division in January 1954.<sup>1</sup>

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<sup>1</sup> Cf. page 6.



It is estimated that it would take a bus about thirty minutes to travel from Turin to Picture Butte. The records kept in 1953 and 1954 showed that the bus from Iron Springs required an average of seventeen minutes for the eight-mile trip to Picture Butte.<sup>1</sup> It made three stops enroute. The bus from Turin would not have to make any stops in its last eleven miles and could, therefore, proceed at the maximum rate permitted; viz., forty miles per hour. Hence an estimate of thirty minutes for the trip seems to be reasonable. To reach Picture Butte a few minutes before 9:00 the bus would have to leave Turin not later than 8:25. Since the busses serving the Turin School at present arrive there between 8:30 and 8:45, some of them would have to arrive at least twenty minutes earlier. Consequently some students would have to leave their homes as much as twenty minutes earlier, and there would be a corresponding delay in their times of arrival at home. A few would have to leave their homes at 7:40, and some would arrive home at 4:50. This schedule appears to be impracticable, especially since it would affect the younger pupils as well as the high school students.

A similar problem would occur in the case of the Barr-hill School which is eleven miles north of Picture Butte. This is only three miles greater than the distance from

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<sup>1</sup> Cf. page 107.



Iron Springs to Picture Butte, but seven miles of the route are district roads. These roads, although they are gravelled, do not permit as great a speed as the highway. Moreover, the students in the Barrhill area are more scattered and the bus routes consequently longer.<sup>1</sup> The adjustments that would have to be made in the Barrhill schedule would be about the same as for Turin. Hence this, also, would be impracticable.

A possible solution to this difficulty would be a change in the school hours at the Picture Butte High School. For the past few years this school has opened at 9:00 in the morning and closed at 3:20 in the afternoon. The noon intermission has been from 12:10 to 1:30, a period of one hour and twenty minutes. By opening at 9:10 and closing at 3:10, and reducing the noon intermission to one hour, the schedule of teaching periods would remain unchanged. By making these changes the transportation of students from Turin and Barrhill could be accomplished with little more inconvenience than has been experienced by the Iron Springs students.

Such a shortening of the noon intermission would necessitate some adjustments on the part of the teaching staff and the students who live in Picture Butte. It would not cause much hardship as the greatest time any teacher or

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<sup>1</sup> This is shown on the map in the appendix.



student requires to walk home is about ten minutes. The elementary school in Picture Butte has had a noon intermission from 12:00 to 1:10 for the past few years. If, in making a change, the intermissions of the two schools could be brought more closely into agreement, it does not appear that a shortening of the high school noon intermission would result in any serious inconvenience to the public generally.

There are at least two factors tending to increase the efficiency of bus transportation in the Picture Butte area. First, municipal district roads are being constantly improved, mainly by more extensive gravelling, thus making possible higher average speeds by the busses. Second, there is a trend towards the use of smaller busses but more of them. The reason for this is that the smaller busses are more suitable for the district roads. The consequence has been that the routes are shorter and the pupils do not have to board the busses so early. This trend is illustrated in the Iron Springs area where the number of busses covering the same routes and serving about the same number of pupils has been increased from four to seven over the past three years.

Transportation problems are rather serious difficulties in the establishment of the proposed centralized high school at Picture Butte. But, if the suggested adjustment in school hours were adopted, transportation would seem to be feasible.



The prospects for increased efficiency in bus service indicate that these problems might become less formidable in the future.

#### 4. Dormitories

An alternative to transportation is the dormitory. High school dormitories have been operated for many years in various parts of Alberta. But many difficulties are involved in their administration and supervision, and the cost to individual students is rather high.<sup>1</sup> In recent years there has been a general decline in dormitory enrollment over the Province as a whole.<sup>2</sup> This is attributed to improved transportation facilities. Since transportation seems to be feasible in the Picture Butte area, the possibility of establishing dormitories was not seriously considered in this investigation.

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<sup>1</sup> Department of Education, A Report on the Operation of School Dormitories, 1950, p.14, 16.

<sup>2</sup> Department of Education, Annual Report, 1951, p.25.



## CHAPTER VI

### FINANCIAL CONSIDERATIONS

Although the proposed composite-type high school discussed in the previous chapters may be desirable and physically feasible, the final test of its practicability is its cost. This project, like any other project to improve an educational system, would result in increased expenditures. These expenditures may be divided into annual operating costs and initial or capital costs.

#### 1. Annual Operating Expenditures

Under operating costs are transportation, teachers' salaries, and miscellaneous items such as supplies, insurance, and the upkeep of buildings. The largest item would be the cost of transportation. An additional daily bus trip would be required from each of the centres, Turin, Barrhill, and Diamond City, to Picture Butte. Bus service in this area is provided by contract with private owners of the buses. Most of this service is supplied by a Picture Butte firm at a flat rate of \$ 13 per day per bus regardless of the length of the route or the number of pupils carried.<sup>1</sup> As there are about

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<sup>1</sup> This figure was supplied by Mr. R. M. Glover, Secretary-Treasurer of the Lethbridge School Division No. 7.



190 school days per year, the expenditure for each additional bus route would be about \$2500, or a total of about \$7500 for the three routes, per year. Of this amount 40% would be recovered by the Division as a grant from the Department of Education.<sup>1</sup>

The expenditure for teacher's salaries would probably not exceed present expenditure for this item. It was shown that the total reduction in the number of teachers resulting from the elimination of Grades X, XI, and XII from the schools at Turin, Barrhill, and Diamond City would be at least three.<sup>2</sup> This reduction might be greater than that if the enrolments in the lower grades of one or more of these schools were small enough to permit the combining of three grades in one room. However, the survey in Chapter II indicates that this possibility is not likely. Hence the reduction in the staffs of the smaller schools is estimated to be three. In the second and subsequent years of the plan, as outlined in Chapter IV, three additional teachers would be required in the Picture Butte High School. As high school teachers are involved in both cases, it may be assumed that there would be no substantial change in the total expenditure for salaries. In the first year of the proposed plan the increase in the Picture Butte staff would be only two while the decrease in

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<sup>1</sup> Department of Education, Grant Regulations, 1954, p.8.

<sup>2</sup> Page 99.



the staffs of the smaller schools would be three. This would result in some savings on teachers' salaries in the first year.

Under the proposed plan the grants received by the Division with respect to teachers would be the same as under the present system. Although two of the additional Picture Butte teachers would be teachers of special subjects, shop work and commercial work, equal grants are now paid for all classes of teachers.<sup>1</sup>

The cost of such items as laboratory supplies, paper and chalk would increase for the Picture Butte High School, but this would be offset by the decrease in such expenditures in the three smaller schools where the high schools would be eliminated. If a new shop building were provided, there would be some increase in expenditure for insurance, heating, and building upkeep.

## 2. Expenditure for Building and Equipment

Some additional students' desks would be required. Since the students would move from room to room to some extent for their classes, the number of desks needed would exceed the number of students. A number of desks, presently used by the high school students at Turin, Barrhill, and Diamond City, could be transferred to Picture Butte.

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<sup>1</sup> Department of Education, Grant Regulations 1954, p.1.



The following summary shows the desk requirements:

Desks needed:

Classroom 8 (Typing room) . . . . .	25
Classroom 6 (Grade X) . . . . .	40
Classroom 10 (Grade XI) . . . . .	45
Classroom 7 (Grade XII) . . . . .	45
Total . . . . .	155

Desks available:

At Picture Butte, now in use by Grades X, XI, and XII . . . . .	85
At Turin, Barrhill, and Diamond City, now in use by Grades X, XI, and XII . .	50 <sup>1</sup>
Total . . . . .	135
Additional desks needed . . . . .	20
Cost of 20 desks at \$21.85 each . . . .	\$437 <sup>2</sup>

The major requirements in equipment are in the machines and tools for the shop courses. The present woodworking equipment requires the addition of only a few tools for the first year course, Woodwork 10. But the metalwork course requires several additional machines and some tools. The following lists of shop equipment were prepared by Mr. Lowery.<sup>3</sup>

<sup>1</sup> This figure is based on the 1952-53 enrolment.

<sup>2</sup> The price \$21.85, F.O.B. Picture Butte, was quoted by Alberta School and Office Furniture, Calgary, in February 1954. The desks are their best quality—a large size chair-type of a kind now in use at Picture Butte.

<sup>3</sup> J. N. Lowery, see footnote page 83.



The lists are based on the requirements for the courses in woodwork and metalwork as outlined in bulletins of the Department of Education.

Additional shop equipment required for the first year:

For Metalwork 10:

Machines:

Squaring shear . . . . .	\$287.00 <sup>1</sup>
Bar folder . . . . .	179.00
Bending brake . . . . .	330.00
Slip roll former . . . . .	93.50
Beading and crimping machine . . . . .	79.20

Tools:

Prick punch . . . . .	.75 <sup>x</sup>
Beakhorn metal forming stake . . . . .	44.00
Hollow mandrel metal forming stake . . . . .	30.80
Metal scribe . . . . .	.90
Breast drill . . . . .	7.07
Punches, hollow (set) . . . . .	1.98
Punches, solid (set) . . . . .	<u>7.70</u>

Total for Metalwork 10 . . . . . \$1061.90

For Woodwork 10:

Tools:

Steel tape, 25-foot . . . . .	4.30
Dowelling jig . . . . .	12.00 <sup>x</sup>
Mortise gauge . . . . .	2.50 <sup>x</sup>
Star drills (set of three) . . . . .	2.27
Jointer plane . . . . .	18.00 <sup>x</sup>
Hand drill . . . . .	3.40
Bench clamps, 4 at 3.57 each . . . . .	<u>14.28</u>

Total for Woodwork 10 . . . . . 56.75

Total for the first year . . . . . \$1118.65

<sup>1</sup> The prices listed, except those marked with an asterisk were quoted by Cooper and Horton Limited, Toronto, F.O.B. Toronto, in February 1954. The machines and tools are "Delta", "South Bend", and other well known brands.

<sup>x</sup> Prices of items marked with an asterisk were not quoted by Cooper and Horton, but were estimated by Mr. Lowery.

and the effect of the environment on the length and width of  
several dimensions of adult fish was evaluated over three months in  
order to determine the growth and development of growth and

## Effect of developing morphology during growth

### Introduction

The growth of fish is a complex process involving the increase in size of all body components. The growth of fish is often described by the relationship between the increase in body size and the increase in weight. This relationship is usually expressed as a power function:

$$W = k L^{\alpha} \quad (1)$$

where  $W$  is weight,  $L$  is length,  $k$  is a constant, and  $\alpha$  is the growth coefficient. The growth coefficient  $\alpha$  is often used to describe the growth rate of a fish. The growth coefficient  $\alpha$  is defined as the ratio of the increase in weight to the increase in length:

$$\alpha = \frac{dW}{dL} = k \alpha L^{\alpha-1} \quad (2)$$

The growth coefficient  $\alpha$  is often used to describe the growth rate of a fish. The growth coefficient  $\alpha$  is defined as the ratio of the increase in weight to the increase in length:

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Additional equipment required for the second year:

For Metalwork 20:

Machines:

Screw cutting lathe . . . . .	\$416.00 <sup>1</sup>
Motor and switch for lathe . . . . .	47.65
Forge . . . . .	105.50

Tools:

Calipers, outside . . . . .	2.95
Calipers, inside . . . . .	2.95
Calipers, hermaphrodite . . . . .	1.55
Micrometer caliper . . . . .	<u>14.00</u>

Total for Metalwork 20 . . . . . \$ 590.60

For Woodwork 20:

Machines:

Jointer, 6-inch . . . . .	201.65
Motor and switch for jointer . . . . .	80.55

Total for Woodwork 20 . . . . . 282.20

Total for the second year . . . . . 872.80

Total for the first year, from page 119 1118.65

Total for both years . . . . . \$ 1991.45

As the shop course proposed for the third year, Woodwork 30, would not require any equipment in addition to that listed for Woodwork 10 and 20, the above total of about \$2000 would be the cost of the extra equipment required for the shop courses proposed in Chapter IV. One-third of the cost of the above equipment would be recovered by the Division as a government grant.<sup>2</sup> The cost to the Division would,

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<sup>1</sup> See footnote 1 page 119.

<sup>2</sup> Department of Education, Grant Regulations, 1954, page 8.

一	九	八	七	六	五	四	三	二	一	十
二	八	七	六	五	四	三	二	一	十	九
三	七	六	五	四	三	二	一	十	九	八
四	六	五	四	三	二	一	十	九	八	七
五	五	四	三	二	一	十	九	八	七	六
六	四	三	二	一	十	九	八	七	六	五
七	三	二	一	十	九	八	七	六	五	四
八	二	一	十	九	八	七	六	五	四	三
九	一	十	九	八	七	六	五	四	三	二
十	十	九	八	七	六	五	四	三	二	一

W E R D S C H U L E  
D E U T S C H E  
S C H U L E

年 常 事 节 日 纪 忆 月 份 日

therefore, be about \$1335.

The largest item of expenditure involved in the proposed plan would be the provision of a suitable building for the shop courses. The present building, originally a one-room school, could be used for the first year. But with the addition of the extra equipment for the second year courses, larger shop facilities would be necessary. An addition to the present building is possible. Two small buildings, presently on the elementary school site, would be available after the new elementary school is built.<sup>1</sup> One of these might be moved to the high school site and used as an addition to the shop building. But it is unlikely that such a solution would be satisfactory since a shop room should be considerably larger than an ordinary classroom. An additional small building would be useful mainly for storage space. A new building especially designed as a shop would, no doubt, prove more satisfactory in the end. Such a building would probably cost between \$20,000 and \$25,000. This estimate is based on information about other shop buildings recently constructed in Alberta. A "frame stucco" building, thirty feet by one hundred nine feet, without basement, containing a general mechanics room, a vocational agriculture room and storage space, was completed at Stony Plain about

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<sup>1</sup> This new school building was referred to on page 20.



1952 at a cost of slightly less than \$ 20,000.<sup>1</sup> A "frame stucco" addition, about forty-eight feet by sixty feet, containing a combined woodwork and automotives room, storage room, finishing room, and office, was built at Leduc in 1952 at a cost of about \$ 25,500.<sup>2</sup> Some local construction, too, indicates that the estimate made above is fairly reliable. Frame buildings, not shops but comparable to the type of building required for shops, were built at Turin and Iron Springs in 1951 at a cost of about \$ 24,000. each.<sup>3</sup> These buildings were without basements and contained two classrooms and a larger general purpose room.

### 3. Summary of Costs

The increase in costs involved in the proposed plan are summarized as follows:

#### Operating costs:

Extra transportation . . . . .	\$7500
Less: transportation grant, 40% of cost . . .	<u>3000</u>
Net increase in operating costs . . . . .	\$4500

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<sup>1</sup> This information was supplied by Mr. J. S. Spady, Secretary-treasurer, Stony Plain School Division.

<sup>2</sup> This information was supplied by Mr. Chas. Bowker, Secretary-treasurer, Clover Bar School Division.

<sup>3</sup> This figure is from the Department of Education, Annual Report, 1952, page 110.



Initial or capital costs:

Desks . . . . .	• • • • •	• • • • •	• • • • •	• • • • •	• • • • •	\$ 437
Shop equipment . . . . .	• • • • •	• • • • •	• • • • •	• • • • •	• • • • •	\$2000
Less: Grant for shop equipment . . . . .	• • • • •	• • • • •	• • • • •	• • • • •	• • • • •	<u>665</u>
Net cost of shop equipment . . . . .	• • • • •	• • • • •	• • • • •	• • • • •	• • • • •	<u>1335</u>
Total for desks and shop equipment						\$ 1772
Shop building						\$25,000

In 1952 the total assessment of the Lethbridge School Division was about \$15,000,000, and the requisition rate was twenty-eight mills.<sup>1</sup> It may be assumed that the construction of the new shop building would be financed by borrowing as most construction in the Division has been in the past. The payment of debentures and the increase of about \$4500 in operating expenditures would require an increase of less than one-half mill in the requisition rate. The total expenditure in the Division in 1952 was about \$840,000.<sup>1</sup> As about 30% of the pupils were in the Picture Butte area, it may be assumed that about 30% of the expenditure, or \$250,000, was incurred in this area. In view of these figures the increase involved in the proposal for a composite high school does not appear excessive. However, the School Board in considering such a proposal would probably take into account the fact that a similar service might be demanded in

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<sup>1</sup> The figures are from the Auditor's Report for the Lethbridge School Division, 1952.



other parts of the Division. If two or three such centralized high schools were established, the cost would, of course, amount to a considerable increase over the cost of the present system.



## CHAPTER VII

### CONCLUSION

#### 1. Summary

In this study of the advisability of establishing a composite-type high school to serve the Picture Butte area three main problems were considered. The first of these was to determine the extent and nature of the weaknesses of the present high school system in the area. The second was to propose a plan for a centralized school which might improve high school services. The third was to determine whether the proposed plan was feasible with respect to facilities, transportation of students, and costs.

The first of these problems was analyzed in Chapter II. This analysis showed two main weaknesses. First, the present small high schools did not serve a very high percentage of the students who were eligible to attend, i.e., students who had received the Grade IX diploma. While little evidence was presented to show that the proportion of people of high school age who were not in school was greater in the Picture Butte area than elsewhere, it was clear that the percentage was much higher than could be considered desirable. Second, of the students who remained in school, only a small percentage graduated, i.e., qualified for the high school diploma. It was shown that this proportion was low relative to certain other schools.



It was concluded that many people of high school age were not adequately served by the schools of the area. This inadequacy was attributed to the rather restricted programs offered by these schools. It was shown that these programs were largely limited to the academic subjects. That such limited programs fail to meet the needs of the present day high school population was examined further in Chapter III. This examination of the results of wider investigations and of the opinions of several authorities pointed to schools offering a more diversified program as a solution to the inadequacy of the strictly academic schools. It was shown that in Alberta such diversification was achieved by adding to the academic programs such subjects as shop, home economics, practical agriculture, and commercial courses. Schools offering such programs required a fairly large enrolment.

The second problem, a plan for a centralized composite-type high school, was dealt with in Chapter IV. A program was suggested providing a core of courses in the shop and commercial fields as well as a quite complete program in the academic subjects. This program was based on the assumed needs and preferences of 150 students, the approximate total high school enrolment at Picture Butte, Turin, Barrhill, and Diamond City, at present. It was also assumed in proposing this program that the Grade VI classes would be removed



from the high school building upon completion of the new elementary school, and that better shop facilities would be provided.

The third problem, the feasibility of the plan, was considered in Chapters V and VI. It was shown in Chapter V that daily transportation of the students, though difficult, would be feasible. The main difficulties pointed out were that transportation of high school students would also affect the schedules of the younger pupils, and that the rather great distances involved in transporting the students from Turin and Barrhill would cause a rather long school day for some students. Attention was drawn to some factors tending to improve bus service, and a plan was suggested for adjusting the school hours at Picture Butte to lessen the hardship which would fall upon the students from the more distant centres.

The increase in costs involved in the proposed plan was summarized in Chapter VI. It was shown that the increase in operating costs would not be excessive. However, the cost of equipment for the proposed shop courses would be fairly high, and the provision of a suitable shop building would be the major item of expense.

On the basis of these conclusions the writer recommends that the School Board of the Lethbridge Division give earnest consideration to the proposal for the establishment of a



composite-type high school to serve the Picture Butte area. The writer does not believe, however, that the proposed plan is a complete solution to the problem of providing for the needs of all people of high school age. There is no certainty that the number of students graduating from high school under the proposed plan would greatly exceed the number now graduating. It was pointed out in Chapter II that a great many students left school during Grades VII, VIII, and IX. This group would not be helped much by the proposed plan. A further reason for this caution is that the number of high school students available in the schools of this area is not much greater than the theoretical minimum for the type of school proposed. In other words, even with the proposed addition of two subject fields to the program, there may still remain a large number of students whose needs and interests are not satisfied. Moreover, it is not universally believed that the composite-type school is the most desirable solution to the high school problem. Some authorities, particularly those concerned with university education, believe that the high school should be concerned mainly with the academic subjects and that special vocational schools should be provided for other subjects.



## 2. Suggested Steps for Implementing the Plan

1. The people of the area should have an opportunity to discuss the plan. The leadership in this would probably be taken by the Superintendent of Schools and the members of the School Board from the sub-divisions in the Picture Butte area. Contact with the public could be made through the Local District School Boards and the Home and School Associations.
2. The high school teachers at Turin, Barrhill, and Diamond City, who would be affected by the plan, should have ample advance notice of the change so that they could make adjustments. As there is usually a considerable turnover of teachers in the Division each year, positions within the Division could probably be found for them.
3. In May or June of the year in which the change is to be made, the high school students should be advised and given guidance as to different types of programs which they could choose. A student questionnaire could be used to gather information as to enrolments in the various courses.
4. Arrangements should be made for the additional bus trips required, and changes in school hours at Picture Butte and at other centres to allow for the extra travelling time of high school students should be agreed upon.
5. Specific half-days of the shop and home economics teachers'



time should be allocated to the small schools, and these schools should be re-organized, where necessary, on a grade and room basis.

6. The services of a teacher qualified in the commercial subjects should be secured.
7. Extra desks and the equipment for the new shop courses should be provided.
8. A timetable for the program of the centralized school should be drawn up.
9. Although the extension of the shop facilities would not be required until the second year, plans should be made for it in good time.

### 3. Possible Future Developments

In the course of this study a number of problems which may demand attention after the school is in operation occurred to the writer. Some of these are:

1. The inclusion of the Nobleford and Coalhurst high schools in the scheme. These schools are within a reasonable distance of Picture Butte and may possibly desire inclusion. This would increase the enrolment by some eighty students, and the school would then serve all that part of the Division between the Old Man and Little Bow Rivers.



2. The provision of a guidance and counselling service for the students. With a wide range of courses to choose from, students would require some expert help.
3. Extra-curricular activities for the students who come to school by bus. It may be possible to give these students a greater share in such activities by providing periods for them during school hours.
4. The inauguration of a semester system. The absenteeism of students in the fall is a serious problem. A system similar to that of the Red Deer school may be a solution.
5. The inclusion of a course in vocational agriculture. Such a course would be valuable in this area. The Curriculum Guide for Agriculture 10, issued by the Department of Education in 1952, outlines practical courses which are adaptable to a variety of conditions.



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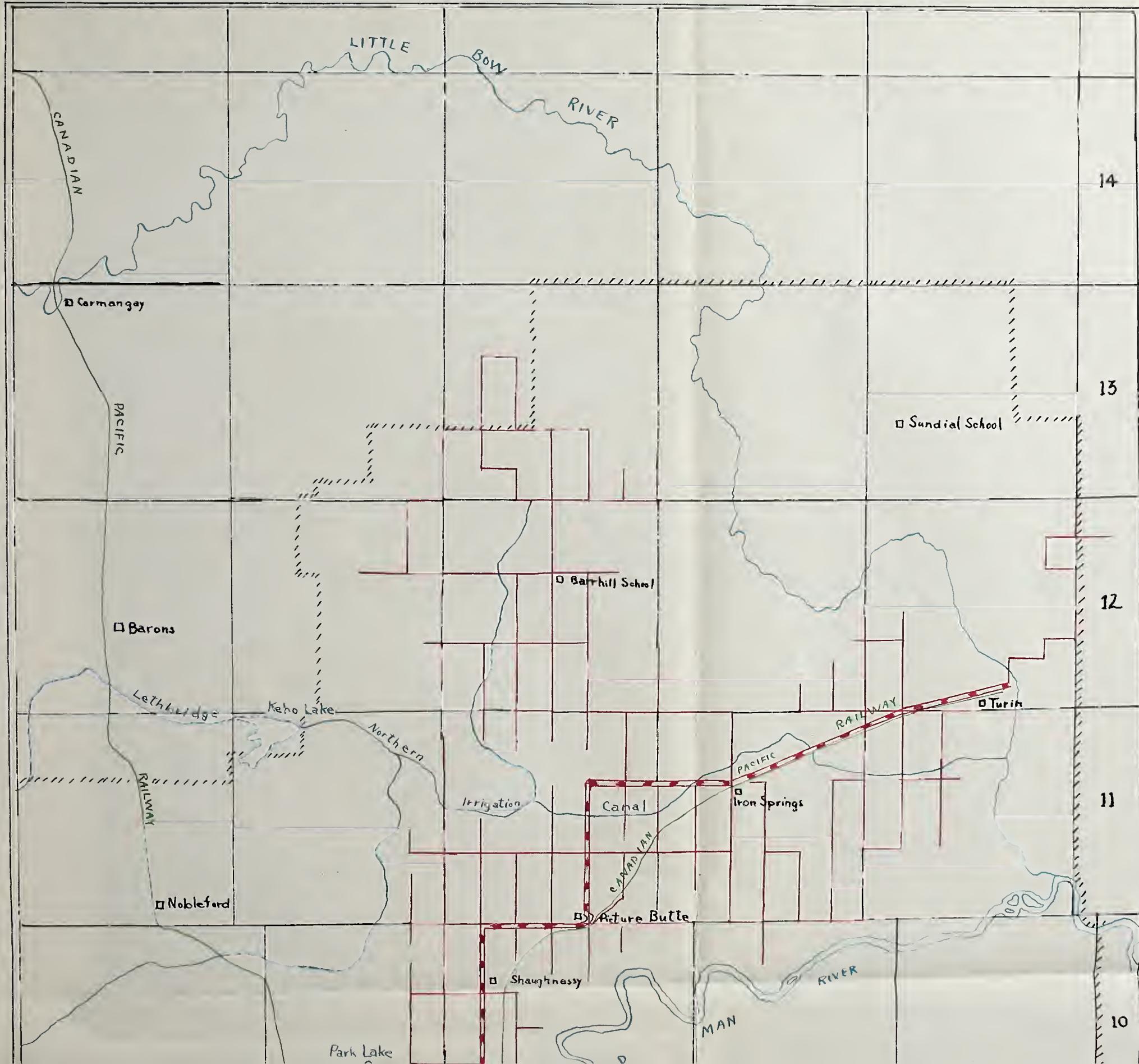
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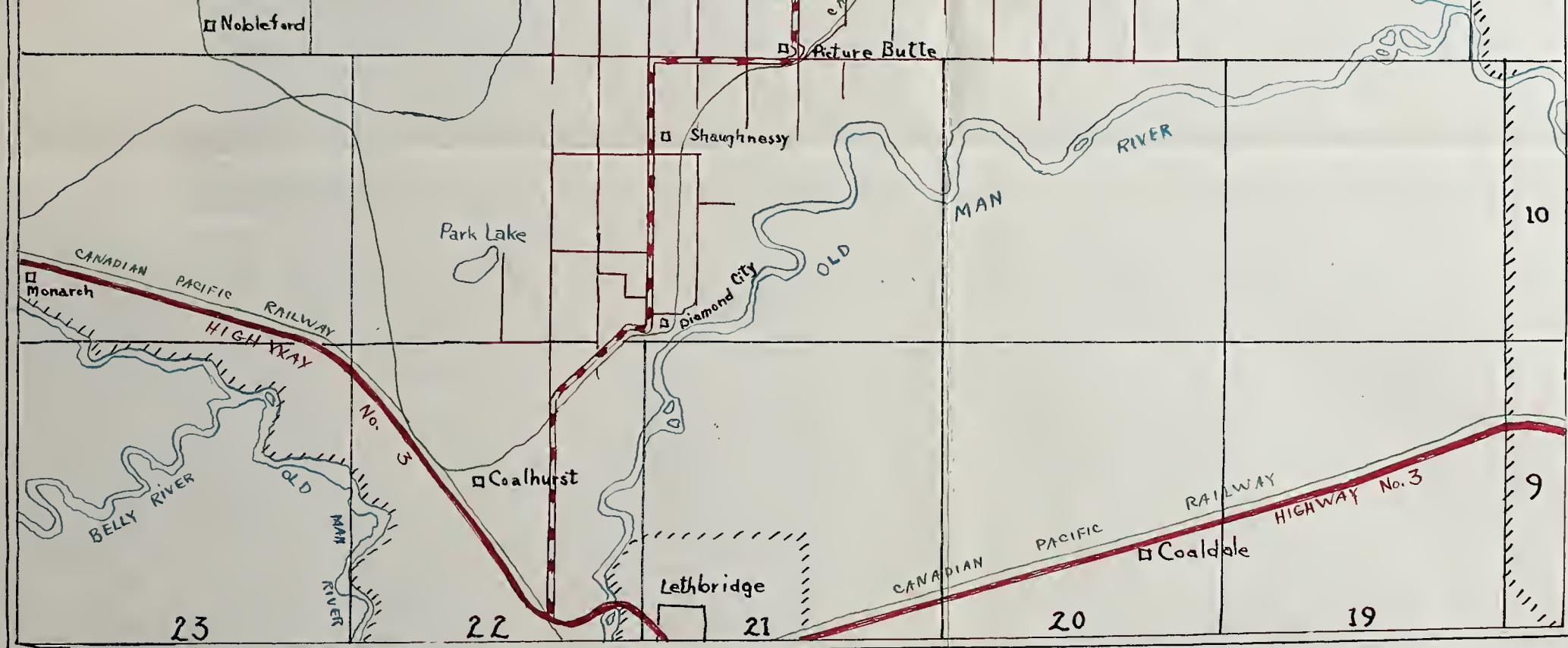
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## APPENDIX

Map of the North-Eastern Part  
of the  
Lethbridge School Division No. 7





NORTH-EASTERN PART OF THE LETHBRIDGE SCHOOL DIVISION No. 7

Scale: 1 inch to 3 miles

REFERENCE

- Roads used as school bus routes, 1953 —
- Provincial Highway No. 25 —
- L.N.I.D. Irrigation Canals —
- Canadian Pacific Railways —
- Division Boundary 1954 //———









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